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April 16, 2004
184288.03.AF.DA

Mr. William Pfanner
Siting Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

RE: Data Adequacy Supplement
San Francisco Electric Reliability Project (04-AFC-1)

On behalf of the City and County of San Francisco, please find attached 75 hard copies and one original of the Data Adequacy Supplement prepared in response to data adequacy requests received from the CEC staff. In addition we are providing five copies of the following attachments:

- Attachment WM-DA-1, the Phase I Environmental Site Assessment
- Attachment WR-DA-1 containing:
  - City and County of San Francisco's Waste Discharge Requirements
  - San Francisco Department of Public Works Order No. 158170
  - Article 4.1 of the San Francisco Public Works Code

Fifty CD-ROMs containing both the complete AFC and the Data Adequacy Supplement (including the two attachments) are also being provided.

Please call me if you have any questions.

Sincerely,

CH2M HILL

John L. Carrier, J.D.
Program Manager

c: Julie Labonte/SFPUC
Ralph Hollenbacher/SFPUC
Jeanne Solé/SF

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2002-0073
NPDES PERMIT NO. CA0037664

WASTE DISCHARGE REQUIREMENTS FOR:

CITY AND COUNTY OF SAN FRANCISCO
SOUTHEAST WATER POLLUTION CONTROL PLANT,
NORTH POINT WET WEATHER FACILITY, AND
BAYSIDE WET WEATHER FACILITIES
SAN FRANCISCO, SAN FRANCISCO COUNTY

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2002-0073
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REISSUING WASTE DISCHARGE REQUIREMENTS FOR:
SOUTHEAST WATER POLLUTION CONTROL PLANT,
NORTH POINT WET WEATHER FACILITY, AND
BAYSIDE WET WEATHER FACILITIES
SAN FRANCISCO, SAN FRANCISCO COUNTY

FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. *Discharger and Permit Applications.* The City and County of San Francisco, hereinafter called the Discharger, has applied to the Board for reissuance of waste discharge requirements and permits to discharge treated wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES) for the Southeast Water Pollution Control Plant (NPDES Permit No. CA 0037664) and for the Bayside Wet Weather Facilities including the North Point Wet Weather Facility (NPDES Permit No. CA 0038610).

2. Since the permits CA0037664 and CA 0038610 regulate two different components of the same Bayside Wastewater treatment system, this permit combines the two NPDES permits.

3. ***Combined Sewer***. The Discharger collects wastewater in a combined sewer system. This means the domestic sewage, industrial wastewater, and stormwater runoff are collected in the same pipes (combined sewer). Most other communities in California have a separated sewer system: one set of pipes for domestic sewage and industrial waste and another set for stormwater. The City has complied with federally mandated upgrades to secondary level treatment of its dry weather wastewater treatment plants to comply with the Clean Water Act as required of Publicly Owned Treatment Works (POTW). The combined sewer system facilities are not POTWs subject to the secondary treatment regulations of 40 Code of Federal Regulation (CFR) Section 133. The U.S. EPA's Office of General Counsel has classified facilities that treat combined sewer overflows as point sources subject to Section 301(b)(1)(A) of the Clean Water Act. Under wet weather conditions, the City's combined sewer system is regulated under the Federal Combined Sewer Overflow Control Policy, (59FR 18688). Combined sewer system wet weather facilities must provide storage capacity for wet weather flows, maximize flow to treatment facilities, and minimize combined sewer overflows.

Facilities Description

4. ***Facility Location and Description***
   a. The Southeast Water Pollution Control Plant is located at 750 Phelps Street in San Francisco. It is a secondary wastewater treatment plant with a peak secondary treatment capacity of 150 million gallons per day (mgd). During wet weather, the Southeast wet weather facilities are engaged to provide primary treatment to an additional 100 mgd of mixed stormwater and sewage.

b. The North Point Wet Weather Facility is located at 111 Bay Street in San Francisco. It operates only during wet weather and provides primary level treatment to combined stormwater and wastewater with a peak primary treatment capacity of 150 mgd. It is not a publicly owned treatment works (POTW) as defined in 40 Code of Federal Regulations (CFR) 122.2.

c. Bayside Wet Weather Storage/Transport and Diversion Structures consist of a series of interconnected large underground rectangular tanks or tunnels that ring San Francisco like a moat, and 29 overflow structures. These storage/transport structures provide storage and treatment equivalent to primary treatment for additional stormwater and wastewater during wet weather conditions. When capacities at the wastewater treatment plants, wet weather facilities and storage/transport structures are exceeded, the excess flow is discharged into the Bay via the 29 shoreline overflow structures.

d. The locations of the above facilities are shown in Attachments A and B.

5. ***Discharge System Descriptions***

   a. Wet Weather Day:
      i. Definition: Wet weather day is defined as any day in which one of the following conditions exists as a result of rainfall:
         1. Instantaneous influent flow to the Southeast Water Pollution Control Plant exceeds 110 mgd; or
         2. The average influent flow concentration of TSS or BOD is less than 100 mg/L, or
         3. North Shore storage/transport wastewater elevation exceeds 100 inches.

   b. Dry Weather Day:
      i. Definition: any day in the year, that is not defined as a wet weather day.
      ii. During dry weather, all the wastewater collected is treated at the Southeast Water Pollution Control Plant.

   c. The Discharger treats domestic and industrial wastewater from the Southeast and North Shore areas of San Francisco, the Bayshore Sanitary District, City of Brisbane, and a small part of the North San Mateo County Sanitation District.

6. The Discharger presently discharges an average dry weather flow of 68 mgd from the Southeast Water Pollution Control Plant. Wet weather flow is maximized at the Southeast Water Pollution Control Plant at 250 mgd and at 150 mgd from the North Point Wet Weather Facility.

7. The Discharger was previously regulated by Waste Discharge Requirements in Order Nos. 94-149, 95-039, and 96-116, adopted by the Board on October 19, 1994, February 15, 1995, and August 21, 1996, respectively. In addition, the SWRCB adopted Order No. WQ 95-04 in September 1995, which remanded portions of Order No. 94-149 based on an appeal of Order No. 94-149 by the Discharger. In particular, WQ 95-04 effectively removed final effluent limitations for aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mercury, PAHs, PCBs (total), TCDD equivalents, toxaphene, and tributyltin which were not supported by the Fact Sheet and findings.

8. The U.S. Environmental Protection Agency (U.S. EPA) and the Board have classified the Southeast Water Pollution Control Plant, the North Point Wet Weather Facility, and the Bayside Wet Weather Facilities as major discharges.

Treatment Process Description

9. ***Treatment Process***.
   a. **Southeast Water Pollution Control Plant:** The treatment process consists of a headworks with coarse and fine bar screens, primary sedimentation tanks, pure oxygen aeration basins, secondary clarifiers and chlorine contact basins (chlorination and dechlorination). The treatment process schematic diagrams for the Southeast Water Pollution Control Plant are included as Attachment C of this Order.
   b. **North Point Wet Weather Facility:** The treatment process consists of primary sedimentation, clarification, disinfection and dechlorination. It treats exclusively wet weather flow consisting of a combination of domestic and industrial wastewater mixed with stormwater runoff. The treatment level at this wet weather facility is equivalent to the minimum treatment specified by the *Combined Sewer Overflow Control Policy* (59 FR 18688) for the "Presumption" approach as defined in Finding 32.
   c. **Bayside Wet Weather Storage/Transport and Diversion Structures:** The treatment process consists of a series of baffles and weirs that are designed to remove settleable solids and floatables. The treatment is equivalent to the minimum treatment specified by the *Combined Sewer Overflow Control Policy* for the "Presumption" approach as defined in Finding 32.

10. ***Discharge Process***
   a. **Southeast Water Pollution Control Plant:**
   The Southeast Water Pollution Control Plant has the capacity to treat up to 250 mgd of combined stormwater and wastewater during wet weather conditions. Up to 150 mgd receive secondary treatment; the remaining 100 mgd receive primary treatment. The entire volume of treated stormwater and wastewater is disinfected prior to discharge. During dry weather conditions, all flow is discharged through the Southeast Water Pollution Control Plant deep water outfall at Pier 80 (E-001). At full wet weather capacity, the discharge via the deep water outfall at Pier 80 (E-001) is maximized to 110 mgd of a blended primary and secondary treated effluent. The remaining 140 mgd receive full secondary treatment and are discharged via the Quint St. shallow water outfall into Islais Creek (E-002).
   b. **North Point Wet Weather Facility:** The North Point Wet Weather Facility is operational only during wet weather and provides primary treatment to combined stormwater and wastewater flow up to 150 mgd. Treated combined stormwater and wastewater (Waste E-003) is simultaneously discharged from the North Point Wet Weather Facility into San Francisco Bay through four deep water outfalls, two of which terminate at the end of Pier 33 (E-003 & E-004), and two of which terminate at the end of Pier 35 (E-005 & E-006). The entire volume of treated stormwater and wastewater is disinfected and dechlorinated prior to discharge.
   c. **Bayside Wet Weather Storage/Transport and Diversion Structures:**
      i. The storage/transport structures operate to transport combined sewage and street runoff to the Southeast Water Pollution Control Plant during dry weather periods. During wet weather, these structures provide storage for additional stormwater and wastewater flow, while pumping facilities continue to transfer flow to the treatment facilities. In the event that the capacities of the treatment plant, wet weather facilities and storage structures are exceeded, the combined stormwater and wastewater receive equivalent of primary treatment in the transport structures and are discharged into San Francisco Bay via one of the twenty-nine shoreline Combined Sewer Overflow structures (CSO 009 to CSO 043).
      ii. Discharges from these structures occur only when the storm flow exceeds the combined storage capacity of the storage/transports and the capacity of the pumping facilities to transfer flows to the treatment plant and wet weather facilities. The outfalls associated with these structures range in size from 18' diameter pipes to quadruple 8'3" X 9'6" box culverts.

11. ***Discharge Locations***. The discharge locations are as follows and as shown in Attachments A & B:

Outfall	Distance from shore/ Depth (Feet)	Receiving Water	Latitude	Longitude
Waste 001 **Discharge E-001** Southeast Water Pollution Control Plant (Pier 80 Outfall)	810 feet from shore/ 42 feet below mean lower low water	Lower San Francisco Bay	37° 44' 58"	122° 22' 22"
Waste 002 **Discharge E-002** Southeast Water Pollution Control Plant (Quint Street Outfall)	Shoreline Outfall	Islais Creek	37° 44' 50"	122° 23' 13"
Waste 003 **Discharges E-003-006** North Point Wet Weather Facility (Discharges 003 and 004, at Pier 33 and Discharges 005 and 006, at Pier 35)	Dual outfalls both 800 feet from shore / 18 feet below mean lower low water	Central San Francisco Bay	37° 48' 25" & 37° 48' 36"	122° 24' 11" & 22° 24' 20"
Waste 007 **Discharge E-007** Oceanside Water Pollution Control Plant (Southwest Ocean Outfall)	This discharge is not regulated by this permit and is only incorporated for reference. It is regulated in permit number CA0037681 City and County of San Francisco Oceanside Water Pollution Control Plant and Westside Wet Weather Combined Sewer System.			
Combined Sewer Overflow Sites				
Waste CSO 001 **Discharge CSW-001**	These discharges are not regulated by this permit and are only incorporated for reference. They are regulated in permit number CA0037681 City and County of San Francisco Oceanside Water Pollution Control Plant and the Westside Wet Weather Combined Sewer System.			
Waste CSO 002 **Discharge CSW-002**				
Waste CSO 003 **Discharge CSW-003**				
Waste CSO 004 **Discharge CSW-004**				
Waste CSO 005 **Discharge CSW-005**				
Waste CSO 006 **Discharge CSW-006**				
Waste CSO 007 **Discharge CSW-007**				
Waste CSO 008	Discharge Eliminated			
Waste CSO 009 **Discharge CSN-009** Baker Street	Shoreline Outfall	Marina Beach North Shore Drainage Basin	37° 48' 29"	122° 26' 48"
Waste CSO 010 **Discharge CSN-010** Pierce Street	Shoreline Outfall	Marina Beach North Shore Drainage Basin	37° 48' 25"	122° 26' 24"

Outfall	Distance from shore/ Depth (Feet)	Receiving Water	Latitude	Longitude
Waste CSO 011 **Discharge CSN-011** Laguna Street	Shoreline Outfall	Yacht Harbor #2 North Shore Drainage Basin	37° 48' 22"	122° 25' 53"
Waste CSO 012	Discharge Eliminated			
Waste CSO 013 **Discharge CSN-013** Beach Street	Shoreline Outfall	Pier 39 North Shore Drainage Basin	37° 48' 30"	122° 24' 24"
Waste CSO 014	Discharge Eliminated			
Waste CSO 015 **Discharge CSN-015** Sansome Street	Shoreline Outfall	Pier 31 North Shore Drainage Basin	37° 48' 24"	122° 24' 11"
Waste CSO 016:	Discharge Eliminated			
Waste CSO 017 **Discharge CSN-017** Jackson Street	Shoreline Outfall	Pier 9 North Shore Drainage Basin	37° 47 54"	122° 23' 41"
Waste CSO 018: **Discharge CSC-018** Howard Street	Shoreline Outfall	Pier 14 Central Drainage Basin	37° 47' 35"	122° 23' 24"
Waste CSO 019 **Discharge CSC-019** Brannan Street	Shoreline Outfall	Pier 32 Central Drainage Basin	37° 47' 7"	122° 23' 24"
Wastes CSO 020 & CSO 021	Discharges Eliminated			
Waste CSO 022 **Discharge CSC-022** Third Street	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 38"	122° 23' 22"
Waste CSO 023 **Discharge CSC-023** Fourth Street North	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 32"	122° 23' 29"
Waste CSO 024 **Discharge CSC-024** Fifth Street North	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 26"	122° 23' 38"
Waste CSO 025 **Discharge CSC-025** Sixth Street North	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 19"	122° 23' 46"
Waste CSO 026 **Discharge CSC-026** Division Street	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 13"	122° 23' 51"
Waste CSO 027 **Discharge CSC-027** Sixth Street South	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 17"	122° 23' 42"
Waste CSO 028 **Discharge CSC-028** Fourth Street South	Shoreline Outfall	Mission Creek Central Drainage Basin	37° 46' 30"	122° 23' 28"
Waste CSO 029 **Discharge CSC-029** Mariposa Street	Shoreline Outfall	Central Basin Central Drainage Basin	37° 45' 53"	122° 23' 7"

Outfall	Distance from shore/ Depth (Feet)	Receiving Water	Latitude	Longitude
Waste CSO 030 Discharge CSC-030 20th Street	Shoreline Outfall	Central Basin Central Drainage Basin	37° 45' 40"	122° 22' 48"
Waste CSO 030A Discharge CSC-030A 22nd Street	Shoreline Outfall	Central Basin Central Drainage Basin	37° 45' 28"	122° 22' 49"
Waste CSO 031 Discharge CSC-031 Third Street North	Shoreline Outfall	Islais Creek Central Drainage Basin	37° 44' 52"	122° 23' 10"
Waste CSO 031A Discharge CSC-031A Islais Creek North	Shoreline Outfall	Islais Creek Central Drainage Basin	37° 44' 52"	122° 23' 15"
Waste CSO 032 Discharge CSC-032 Marin Street	Shoreline Outfall	Islais Creek Central Drainage Basin	37° 44' 55"	122° 23' 27"
Waste CSO 033 Discharge CSC-033 Selby Street	Shoreline Outfall	Islais Creek Central Drainage Basin	37° 44' 52"	122° 23' 27"
Waste CSO 034	Discharge Eliminated			
Waste CSO 035 Discharge CSC-035 Third Street South	Shoreline Outfall	Islais Creek Central Drainage Basin	37° 44' 50"	122° 23' 10"
Waste 036	Discharge Eliminated			
Waste CSO 037 Discharge CSS-037 Evans Avenue	Shoreline Outfall	India Basin Southeast Drainage Basin	37° 44' 9"	122° 22' 26"
Waste CSO 038 Discharge CSS-038 Hudson Avenue	Shoreline Outfall	India Basin Southeast Drainage Basin	37° 44' 0"	122° 22' 26"
Waste CSO 039	Discharge Eliminated			
Waste CSO 040 Discharge CSS-040 Griffith Street South	Shoreline Outfall	Yosemite Canal Southeast Drainage Basin	37° 43' 23"	122° 22' 56"
Waste CSO 041 Discharge CSS-041 Yosemite Avenue	Shoreline Outfall	Yosemite Canal Southeast Drainage Basin	37° 43' 26"	122° 23' 8"
Waste CSO 042 Discharge CSS-042 Fitch Street	Shoreline Outfall	South Basin Southeast Drainage Basin	37° 43' 20"	122° 22' 55"
Waste CSO 043 Discharge CSS-043 Sunnydale Avenue	Shoreline Outfall	Candlestick Cove Southeast Drainage Basin	37° 44' 50"	122° 23' 13"

CSN = North Drainage Basin
CSC = Central Drainage Basin
CSS = Southeast Drainage Basin

CSW = Westside Drainage Basin

12. ***Solids Treatment, Handling and Disposal***.
    a. **Southeast Water Pollution Control Plant:** Primary and secondary sludge is processed via anaerobic digestion. Prior to digestion, the secondary sludge is thickened. The digested and dewatered sludge is beneficially re-used as alternative daily cover at a permitted landfill sites or is used as land application at a permitted site.
    b. **North Point Wet Weather Facility:** Primary sludge is directed to the Southeast Water Pollution Control Plant for treatment.
    c. **Bayside Wet Weather Storage/Transport and Diversion Structures:** All solids which settle out in the storage/transport structures are flushed to the Southeast Water Pollution Control Plant after the rainstorm subsides.

Combined Sewer Overflow

13. U.S. EPA's Office of General Counsel has classified facilities that treat combined sewer overflows as point sources subject to Section 301(b)(1)(A) of the Clean Water Act. Thus, they are not Publicly Owned Treatment Works (POTWs) subject to the secondary treatment regulations of 40 Code of Federal Regulations (CFR) Section 133. This opinion is supported by subsequent case law (646 F.2d 568(1980); Montgomery Environmental Coalition V. Costle).

14. Wet weather flows are intermittent in nature and subject to a high degree of variability throughout the wet weather season. Based on past rainfall records, the North Point Wet Weather Facility will be operated approximately 30-40 times per wet season, with the duration of each operation expected to average approximately 12 hours at a maximum flow rate of approximately 150 mgd. The sanitary fraction in controlled overflows averages 6% of the total flow.

15. In 1971 and 1974, the Discharger developed the "Master Plan for Wastewater Management" and "Master Plan Environmental Impact Statement and Report", respectively. These documents set the groundwork for the Discharger's wastewater control program by identifying the need for upgraded treatment levels and the principle of storing accumulated combined sewage flow during wet weather for later treatment at the wastewater treatment plants.

16. In 1979, the Board issued Order No. 79-67 for the wet-weather facilities. This order found that a long term average of 4 overflows per year for diversion structures CSN-009 through CSN-017 (North Shore Drainage Basin), a long term average of 10 overflows per year for diversion structures CSC-018 through CSC-035 (Central Basin Drainage), and a long term average of 1 overflow per year for diversion structures CSS-037 through CSS-043 (Southeast Drainage Basin) would provide adequate overall protection of beneficial uses. This conclusion is based on evidence presented at the public meeting concerning the costs of different types of facilities necessary to achieve specific overflow frequencies, the water quality benefits derived from construction of these facilities, and the effects of the combined sewer overflows to existing beneficial uses. Wet weather flows are governed under compliance with the nine minimum controls contained in the *Combined Sewer Overflow Control Policy* (59FR 18688). The Discharger is responsible for operating wet weather facilities, storage, transport and pumping facilities at maximum efficiency in order to maximize treatment of wet weather flow. The Discharger has successfully designed and completed construction of its wet weather facilities based upon criteria contained in Order No. 79-67. Operation and implementation of these facilities satisfies CSO Control Policy requirements. The system was designed and built based upon historical rainfall data to not exceed the overflow frequencies specified in Order No. 79-67. As specified in Order No. 79-67 and subsequent permits for these facilities, these long term design criteria will not be used to determine compliance or non-compliance. The Board recognizes that

some years are wetter than others and may contribute more flow than anticipated in the system design criteria. The Discharger is required to maximize treatment and shall be considered in compliance as defined by adherence to the Wet Weather Effluent Performance Criteria defined in this permit and the Operations Plan and other permit conditions.

17. The storage and transport structures, which surround the City like a moat, were designed with the capacity to capture and hold wet weather flows for later treatment and prevent shoreline overflows. The system capacity was measured, designed, and constructed based upon a previous 70 year rainfall history pattern of California and the San Francisco Bay Area to capture flows as necessary to achieve the criteria specified in Order No. 79-67. In 1997, the Discharger completed the major components of the Wastewater Master Plan, and is in compliance with the Federal Combined Sewer Overflow Control Policy. Citywide, this construction program cost more than $1.4 billion dollars over a twenty-year period and represents an expenditure of nearly $1,900 for every resident in the City of San Francisco. Approximately $1 billion of the cost represents facilities needed to control wet weather flows. The remaining costs were for treatment upgrades to all facilities and construction of the Oceanside Water Pollution Control Plant. The Oceanside Water Pollution Control Plant collects and treats the wastewater and stormwater for the western half of the City and County of San Francisco, excluding the Presidio. This permit does not regulate the discharges from the Oceanside Water Pollution Control Plant. Discharges associated with the Oceanside Water Pollution Control Plant are regulated under NPDES Permit No. CA0037681.

Regional Monitoring Program

18. On April 15, 1992, the Board adopted Resolution No. 92-043 directing the Executive Officer to implement the Regional Monitoring Program (RMP) for the San Francisco Bay. Subsequent to a public hearing and various meetings, Board staff requested major permit holders in this region, under authority of section 13267 of California Water Code, to report on the water quality of the estuary. These permit holders, including the Discharger, responded to this request by participating in a collaborative effort, through the San Francisco Estuary Institute (formerly the Aquatic Habitat Institute). This effort has come to be known as the San Francisco Bay Regional Monitoring Program for Trace Substances. This Order specifies that the Discharger shall continue to participate in the RMP, which involves collection of data on pollutants and toxicity in water, sediment and biota of the estuary. Annual reports from the RMP are referenced elsewhere in this Order.

Applicable Plans, Policies and Regulations

Basin Plan

19. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The State Water Resources Control Board (SWRCB) and the Office of Administrative Law approved the revised Basin Plan on July 20, 1995 and November 13, 1995, respectively. A summary of the regulatory provisions is contained in Title 23 of the California Code of Regulations, Section 3912. The Basin Plan identifies beneficial uses and water quality objectives for waters of the State in the Region, including surface waters and ground waters. The Basin Plan also identifies discharge prohibitions intended to protect beneficial uses. Section 4 of the Basin Plan states that "The Regional Board intends to implement the federal CSO Control Policy for the combined sewer overflows from the City and County of San Francisco". This Order implements the plans, policies and provisions of the Board's Basin Plan.

Beneficial Uses

20. *Central San Francisco Bay:* Beneficial uses of central San Francisco Bay and contiguous water, as identified in the Basin Plan and based on known uses of the receiving waters in the vicinity of the discharges, are:

- Commercial, and Sport Fishing
- Estuarine Habitat
- Industrial Service Supply
- Industrial Process Supply
- Fish Migration
- Fish Spawning
- Navigation
- Preservation of Rare and Endangered Species
- Water Contact Recreation
- Noncontact Water Recreation
- Shellfish Harvesting
- Wildlife Habitat

21. *Lower San Francisco Bay:* Beneficial uses of Lower San Francisco Bay and contiguous water, as identified in the Basin Plan and based on known uses of the receiving waters in the vicinity of the discharges, are:

    - Commercial, and Sport Fishing
    - Estuarine Habitat
    - Industrial Service Supply
    - Fish Migration
    - Navigation
    - Preservation of Rare and Endangered Species
    - Water Contact Recreation
    - Noncontact Water Recreation
    - Shellfish Harvesting
    - Wildlife Habitat

Combined Sewer Overflow Control Policy (CSO Policy)

22. On April 11, 1994, U.S. EPA adopted the *Combined Sewer Overflow (CSO) Control Policy* (59 Federal Resister 18688-18698). This policy became part of the Clean Water Act in December 2000 and establishes a consistent national approach for controlling discharges from CSOs to the nation's water. Using the NPDES permit program, the policy initiates a two-phased process with higher priority given to more environmentally sensitive areas. During the first phase, the permittee is required to implement the nine minimum controls listed in later findings. These controls constitute the technology-based requirements of the Clean Water Act as applied to combined sewer facilities (best conventional treatment, BCT, and best available treatment, BAT). These nine minimum controls can reduce the frequency of CSOs and reduce their effects on receiving water quality. During the second phase, the permittee is required to continue the implementation of the nine minimum controls, properly operate and maintain the completed CSO controls in accordance with the operational plan, and implement the post-construction monitoring program.

State Implementation Policy (SIP)

23. The SWRCB adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Policy or SIP) on March 2, 2000 and the Office of Administrative Law (OAL) approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants in the inland surface waters, enclosed bays and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control

Act (Division 7 of the Water Code) and the federal Clean Water Act. The SIP establishes implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxics Rule (NTR) and California Toxics Rule (CTR), and for priority pollutant objectives established by the Regional Water Quality Control Boards (RWQCBs) in their water quality control plans (basin plans). The SIP also establishes monitoring requirements for 2,3,7,8-TCDD equivalents, chronic toxicity control provisions, and Pollutant Minimization Program.

24. The SIP does not apply to discharges of toxic pollutants from combined sewer overflows. Therefore, the requirements of the SIP only apply when the Discharger is operating in the "dry weather" mode, and only to discharges through outfall E-001.

California Toxics Rule (CTR)

25. On May 18, 2000, the U.S. EPA published the *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (Federal Register, Volume 65, Number 97, 18 May 2000, or the CTR). The CTR specified water quality standards for numerous pollutants, of which some are applicable to the Discharger's receiving waters.

Other Regulatory Bases

26. Water quality objectives and effluent limitations in this permit for E-001 during dry weather are based on the SIP; the plans, policies and water quality objectives and criteria of the Basin Plan; CTR; *Quality Criteria for Water* (U.S EPA 440/5-86-001, 1986 and subsequent amendments, "Gold Book"); applicable Federal Regulations (40 CFR Parts 122 and 131); NTR; December 10, 1998 "National Recommended Water Quality Criteria" compilation (Federal Register Vol. 63, No. 237, pp. 68354-68364); and Best Professional Judgment (BPJ) as defined in the Basin Plan. Where numeric effluent limitations have not been established or updated in the Basin Plan, 40 CFR 122.44(d) specifies that water quality based effluent limits may be set based on criteria and supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses. Discussion of the specific bases and rationale for effluent limits are given in the associated Fact Sheet for this Permit, which is incorporated as part of this Order.

27. Other U.S. EPA guidance documents upon which BPJ was developed for all the discharges in this permit may include in part:

- Region 9 Guidance For NPDES Permit Issuance, February 1994;
- Technical Support Document for Water Quality Based Toxics Control (March 1991) (TSD);
- Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria, October 1, 1993;
- Whole Effluent Toxicity (WET) Control Policy, July 1994;
- National Policy Regarding Whole Effluent Toxicity Enforcement, August 14, 1995;
- Clarifications Regarding Flexibility in 40 CFR Part 136 Whole Effluent Toxicity (WET) Test Methods, April 10, 1996;
- Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final, May 31, 1996;
- Draft Whole Effluent Toxicity (WET) Implementation Strategy, February 19, 1997.
- *Combined Sewer Overflows, Guidance For Nine Minimum Controls*, EPA 832-B-95-003, May 1995
- *Manual, Combined Sewer Overflow Control,* EPA/625/R-93/007, September 1993
- *Combined Sewer Overflows, Guidance For Permit Writers*, EPA 832-B-95-008, September 1995
- *Combined Sewer Overflows, Guidance For Long-Term Control Plan*, EPA 832-B-95-002, September 1995

Basis for Effluent Limitations

General Basis

28. **Federal Water Pollution Control Act**. Effluent limitations and toxic effluent standards are established pursuant to sections 301 through 305, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharges herein.

29. The secondary technology based limits for conventional pollutants for dry weather discharges at E-001 are established in accordance with the Basin Plan and 40 CFR 125. During wet weather, the CSO Control Policy requirements together with technology based limits based on past performance for discharges at E-001, E-002, and E-003 replaces the secondary technology limits.

CSO Policy Requirements

30. The nine minimum controls listed in the CSO Policy are as follows:

    a. Conduct proper operation and regular maintenance programs for the combined sewer system (CSS) and the CSO outfalls;
    b. Maximize use of the collection system for storage;
    c. Review and modify pretreatment programs to ensure that CSO impacts are minimized;
    d. Maximize flow to the POTW for treatment;
    e. Prohibit CSOs during dry weather;
    f. Control solids and floatable materials in CSOs;
    g. Develop and implement pollution prevention programs that focus on contaminant reduction activities;
    h. Notify the public; and
    i. Monitor to effectively characterize CSO impacts and the efficacy of CSO controls.

31. The Discharger implemented the nine minimum controls as required by the CSO Policy.

32. In conformance with the CSO Policy, the Discharger developed a long-term control plan to select CSO controls to comply with water quality standards, based on consideration of the Discharger's financial capability. The purpose of this long-term control plan is to comply with the water quality requirements of the Clean Water Act. The CSO Policy provides two alternative approaches – the "demonstration" and the "presumption" approaches – that provide communities with targets for CSO controls that achieve compliance with the Act, particularly protection of water quality and designated beneficial uses. The Discharger's program, which is already complete, complies with the presumption approach. This approach is defined in the CSO Policy as follows:

    "'*Presumption' Approach*
    A program that meets any of the criteria listed below would be presumed to provide an adequate level of control to meet the water quality-based requirements of the CWA, provided the permitting authority determines that such presumption is reasonable in light of the data and analysis conducted in the characterization, monitoring, and modeling of the system and the consideration of sensitive areas described above. These criteria are provided because data and modeling of wet weather events often do not give a clear picture of the level of CSO controls necessary to protect WQS [Water Quality Standards].

    i. No more than an average of four overflow events per year, provided that the permitting authority may allow up to two additional overflow events per year. For the purpose of this criterion, an overflow event is one or more overflows from a CSS[Combined Sewer System] *as the result of a precipitation event that does not receive the minimum treatment specified below; or*

ii. *The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide annual average basis; or*

iii. *The elimination or removal of no less than the mass of the pollutants, identified as causing water quality impairment through the sewer system characterization, monitoring, and modeling effort, for the volumes that would be eliminated or captured for treatment under paragraph ii above.*

Combined sewer overflows remaining after implementation of the nine minimum controls and within the criteria specified at II.C.4.a.i or ii, should receive a minimum of:

- *Primary clarification (Removal of floatables and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification.);*
- *Solids and floatables disposal; and*
- *Disinfection of effluent, if necessary, to meet WQS, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary."*

33. The recently completed San Francisco Wastewater Control Program exceeds the specifications of the Presumption Approach. San Francisco captures and provides treatment to 100% of the combined sewer flows rather than the 85% identified in option ii. As defined in the CSO Policy, San Francisco has no remaining untreated overflow events; the overflows that occur in San Francisco have received treatment (within the storage/transports) consisting of removal of floatables and settleable solids.

34. The wet weather conditions in this Order require continued implementation of the long-term plan such that pollutant removal is maximized.

Applicable Water Quality Objectives

35. The water quality objectives (WQO) applicable to the receiving water of this Discharger are from the Basin Plan, the CTR, and the NTR.

    a. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (VI), copper in freshwater, lead, mercury, nickel, silver, zinc, and cyanide (see also c. below). The narrative toxicity objective states in part "[a]ll waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." The bioaccumulation objective states in part "[c]ontrollable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life." Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.

    b. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries such as here, except that where the Basin Plan's Tables 3-3 and 3-4 specify numeric objectives for certain of these priority toxic pollutants, the Basin Plan's numeric objectives apply over the CTR (except in the South Bay south of the Dumbarton Bridge).

    c. The NTR established numeric aquatic life criteria for selenium, and numeric aquatic life and human health criteria for cyanide for waters of San Francisco Bay upstream to and including

Suisun Bay and the Sacramento-San Joaquin Delta. This includes the receiving water for this Discharger.

Basin Plan Receiving Water Salinity Policy

36. The Basin Plan states that the salinity characteristics of the receiving water shall be considered in determining the applicable water quality objectives. Freshwater objectives apply to discharges to waters both outside the zone of tidal influence and with salinities lower than 5 parts per thousand (ppt) at least 75 percent of the time. Saltwater objectives shall apply to discharges to waters with salinities greater than 5 ppt at least 75 percent of the time. For discharges to waters with salinities in between the two categories or tidally influenced freshwaters that support estuarine beneficial uses, the objectives shall be the lower of the salt or freshwater objectives, based on ambient hardness, for each substance.

CTR Receiving Water Salinity Policy

37. The CTR states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable water quality criteria. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one ppt at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally influenced freshwaters that support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria, (the latter calculated based on ambient hardness), for each substance.

Receiving Water Salinity

38. The receiving waters for the subject discharge are the waters of central and lower San Francisco Bay. Salinity data indicate that the receiving waters for the subject discharge are saline according to both the Basin Plan and the CTR definitions.

Daily Maximum Effluent Limits

39. Maximum Daily Effluent Limits (MDEL) are used in this permit to protect against acute water quality effects. It is impracticable to use weekly average limitations to guard against acute effects. Weekly averages are effective for monitoring the performance of biological wastewater treatment plants, whereas the MDELs are necessary for preventing fish kills or mortality to aquatic organisms.

    NPDES regulations, the SIP, and U.S. EPA's Technical Support Document (TSD) provide the basis to establish MDELs:

    NPDES regulations at 40 Code of Federal Regulations section 122.45(d) state:
    "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall *unless impracticable* be stated as:
    (1) Maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works; and
    (2) Average weekly and average monthly discharge limitations for POTWs." (Emphasis added.)

    The SIP (page 8, Section 1.4) requires water quality based effluent limits be expressed as maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

    The TSD (page 96) states daily maximum is appropriate for two reasons:

    1. The basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for assuring achievement of water quality standards.

2. The 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations and therefore the discharge's potential for causing acute toxic effects would be missed. A maximum daily limit would be toxicologically protective of potential acute toxicity impacts.

Technology Based Effluent Limits

40. Permit effluent limits for conventional pollutants for the dry weather E-001 discharge are technology based. Limits in this permit are the same as those in the prior permit for the following constituents: Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), settleable matter, oil and grease, and chlorine residual. Technology-based effluent limitations are put in place to ensure that full secondary treatment is achieved by the wastewater treatment facility.

Water Quality Based Effluent Limitations

41. During dry weather as defined by Finding 5, toxic substances in Discharge E-001 are regulated by water quality based effluent limitations (WQBELs) derived from national water quality criteria listed in the Basin Plan Tables 3-3 and 3-4, the National Toxics Rule, or U.S. EPA Gold Book, the CTR, the SIP, and/or best professional judgment. WQBELs in this Order are revised and updated from the limits in the previous permit order and their presence in this Order is based on the evaluation of the Discharger's data as described below under the Reasonable Potential Analysis. Numeric WQBELs are required for all constituents that have reasonable potential to cause or contribute to an excursion above any State water quality standard. Reasonable potential is determined and final WQBELs are developed using the methodology outlined in the SIP. If the Discharger demonstrates that the final limits will be infeasible to meet and provides justification for a compliance schedule, then interim limits are established, with a compliance schedule to achieve the final limits. Further details about the effluent limitations are given in the associated Fact Sheet, which is incorporated as part of these Findings.

Receiving Water Ambient Background Data Used in Calculating WQBELs

42. Ambient background values are utilized in the reasonable potential analysis (RPA) and in the calculation of effluent limitations for E-001 during dry weather. For RPA, ambient background concentrations shall be the observed maximum water column concentration. For calculating WQBELs, as stated in the SIP, ambient background concentration shall be the observed maximum ambient water column concentration or the arithmetic mean of observed ambient water concentrations (for the criterion/objective that is intended to protect human health from carcinogenic effects). The RMP stations at Yerba Buena Island and Richardson Bay located in the Central Bay have been sampled for most of the inorganic and some of the organic toxic pollutants. WQBELs were calculated using RMP data from 1992 through 2000 for inorganics and 1993 through 2000 for organics. However, not all the constituents listed in the CTR were analyzed by the RMP during this time. This data gap is filled by a provision in this Order that requires the Discharger to determine ambient background for those constituents. This requirement may occur either through participation in new RMP special studies or through equivalent studies conducted jointly with other Dischargers. Upon completion of the required ambient background monitoring, the Board shall use the gathered data to conduct the RPA and determine if a water-quality based effluent limitation is required.

Constituents Identified in the 303(d) List

43. On May 12, 1999, the U.S. EPA approved a revised list of impaired waterbodies prepared by the State. The list [hereinafter referred to as the 303(d) list] was prepared in accordance with Section 303(d) of the federal Clean Water Act to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. Central and lower San Francisco Bays are listed as impaired water bodies. The pollutants impairing central San Francisco Bay include chlordane, copper, DDT, diazinon, dieldrin, dioxin and

furan compounds, exotic species, mercury, total PCBs, PCBs (dioxin-like) and selenium. The pollutants impairing lower San Francisco Bay include these same pollutants, and nickel.

Dilution and Assimilative Capacity

44. In response to the State Board's Order No.2001-06, staff has evaluated the assimilative capacity of the receiving water for 303(d) listed pollutants for which the Discharger has reasonable potential in its discharge. The evaluation included a review of RMP data (local and Yerba Buena Island and Richardson Bay stations), effluent data, and WQOs. From this evaluation, staff has found that the assimilative capacity is highly variable due to the complex hydrology of the receiving water. Therefore, there is uncertainty associated with the representative nature of the appropriate ambient background data to conclusively quantify the assimilative capacity of the receiving water. Pursuant to Section 1.4.2.1 of the SIP, "dilution credit may be limited or denied on a pollutant-by-pollutant basis…"

    a. For bioaccumulative and impairing pollutants, based on BPJ, dilution credit is not included in calculating the final WQBELs. This determination will be based on available data on concentrations of these pollutants in aquatic organisms, sediment, and the water column. At the present time, dilution credit is not included for the following pollutants: mercury, dieldrin, 4,4'-DDE, dioxins and furans, PCBs, Chlordane, and selenium. Primarily, this determination is based on a San Francisco Bay fish tissue data that show these pollutants, except selenium, exceed screening levels. The fish tissue data are contained in "*Contaminant Concentrations in Fish from San Francisco Bay 1997*" May 1997. For selenium, this determination is based on Bay waterfowl tissue data presented in the California Department of Fish and Game's "*Selenium Verification Study"* (1986-1990). These data show elevated levels of selenium in the livers of waterfowl that feed on bottom dwelling organisms such as clams. Additionally, in 1987 the Office of Environmental Health Hazard Assessment issued an advisory for the consumption of two species of diving ducks in the north bay found to have high tissue levels of selenium. This suggests that there is no more assimilative capacity in the Bay for these pollutants. Denial of dilution credits in the calculation of WQBELs for bioaccumulative pollutants that are 303(d) listed is further justified by fish advisories to the San Francisco Bay. The office of Environmental Health and Hazard Assessment (OEHHA) performed a preliminary review of the data from the 1994 San Francisco Bay pilot study, "Contaminated Levels in Fish Tissue from San Francisco Bay." The results of the study showed elevated levels of chemical contaminants in the fish tissues. Based on these results, OEHHA issuedan interim consumption advisory covering certain fish species from the bay in December, 1994. This interim consumption advice was issued and is still in effect due to health concerns based on exposure to sport fish from the bay contaminated with mercury, polychlorinated biphenyls (PCBs), dioxins, and pesticides (e.g., DDT). Based on these data, the Board placed selenium, mercury, and PCBs on the CWA Section 303(d) list. The USEPA added dioxins and furans compounds, dieldrin, Chlordane, and 4,4'-DDT on the CWA Section 303(d) list.

    b. Furthermore, Section 2.1.1 of the SIP states that for bioaccumulative compounds on the 303(d) list, the Board should consider whether mass-loading limits should be limited to current levels. The Board finds that mass loading limits are warranted for certain bioaccumulative compounds on the 303(d) list for the receiving waters of this discharge. This is to ensure that this discharge does not contribute further to impairment of the narrative objective for bioaccumulation.

    c. For non-bioaccumulative constituents, it is assumed that there is assimilative capacity based on BPJ, and a conservative allowance of 10:1 dilution is granted. This is based on the SIP, which allows the Board to further limit dilution credits.

Total Maximum Daily Loads (TMDLs) and Waste Load Allocations (WLAs)

45. Based on the 303(d) list of pollutants impairing central and lower San Francisco Bay, the Board plans to adopt Total Maximum Daily Loads (TMDLs) for these pollutants no later than 2010, with the exception of dioxin and furan compounds. The Board defers development of the TMDL for dioxin and furan compounds to the U.S. EPA. Future review of the 303(d) list for central and lower San Francisco Bay may result in revision of the schedules and/or provide schedules for other pollutants.

46. The TMDLs will establish waste load allocations (WLAs) and load allocations for point sources and non-point sources, respectively, and will result in achieving the water quality standards for the water body. The final effluent limitations for this discharge will be based on WLAs that are derived from the TMDLs.

47. Compliance Schedules: Pursuant to Section 2.1.1 of the SIP, "the compliance schedule provisions for the development and adoption of a TMDL only apply when: (a) the Discharger requests and demonstrates that it is infeasible for the Discharger to achieve immediate compliance with a CTR criterion; and (b) the Discharger has made appropriate commitments to support and expedite the development of the TMDL. In determining appropriate commitments, the RWQCB should consider the discharge's contribution to current loadings and the Discharger's ability to participate in TMDL development." As further described in a later finding under the heading ***Interim Limits and Compliance Schedules***, the Discharger has requested and demonstrated that it is infeasible to achieve immediate compliance for certain pollutants. Also, the Discharger has agreed to assist the Board in TMDL development through active participation and contribution to the Bay Area Clean Water Agencies (BACWA). The Board adopted Resolution No. 01-103, on September 19, 2001, which authorizes the Executive Officer of the Board to enter into a Memorandum of Understanding with BACWA, and other parties to accelerate the development of Water Quality Attainment Strategies including TMDLs for the San Francisco Bay-Delta and its tributaries.

48. The following summarizes the Board's strategy to collect water quality data and to develop TMDLs:
    a. Data collection – The Board has given the dischargers the option to collectively assist in developing and implementing analytical techniques capable of detecting 303(d)-listed pollutants to at least their respective levels of concern or water quality objectives. The Board will require dischargers to characterize the pollutant loads from their facilities into the water-quality limited water bodies. The results will be used in the development of TMDLs, but may also be used to update/revise the 303(d) list and/or change the water quality objectives for the impaired water bodies including central and lower San Francisco Bay.

    b. Funding mechanism – The Board has received, and anticipates continued receipt of, resources from federal and state agencies for the development of TMDLs. To ensure timely development of TMDLs, the Board intends to supplement these resources by allocating development costs among Dischargers through the RMP or other appropriate funding mechanisms.

Interim Limits and Compliance Schedules

49. Until final WQBELs or WLAs are adopted, state and federal anti-backsliding and antidegradation policies, and the SIP, require that the Board include interim effluent limitations. The interim effluent limitations will be the lower of the following:
    - current performance; or
    - maximum observed effluent concentration

    This permit establishes interim performance-based mass limits in addition to interim concentration limits for dry weather E-001 to limit discharge of 303(d)-listed bioaccumulative pollutants' mass loads to their current levels. These interim performance-based mass limits are based on recent

discharge data. Where pollutants have existing high detection limits, interim mass limits are not established because meaningful performance-based mass limits cannot be calculated for pollutants with non-detectable concentrations. However, the Discharger has the option to investigate alternative analytical procedures that result in lower detection limits, either through participation in new RMP special studies or through equivalent studies conducted jointly with other Dischargers.

50. Compliance schedules are established based on Section 2.2 of the SIP for limits derived from CTR criteria or are based on the Basin Plan for limits derived from the Basin Plan WQOs. If an existing Discharger cannot immediately comply with a new and more stringent effluent limitation, the SIP and the Basin Plan authorize a compliance schedule in the permit. To qualify for a compliance schedule, both the SIP and the Basin Plan require that the Discharger demonstrate that it is infeasible to achieve immediate compliance with the new limit. The SIP and Basin Plan require that the following information be submitted to the Board to support a finding of infeasibility:
    i. documentation that diligent efforts have been made to quantify pollutant levels in the discharge and sources of the pollutant in the waste stream, including the results of those efforts;
    ii. documentation of source control and/or pollution minimization efforts currently under way or completed;
    iii. a proposed schedule for additional or future source control measures, pollutant minimization or waste treatment; and
    iv. a demonstration that the proposed schedule is as short as practicable.

51. On April 25, 2002, the Discharger submitted a feasibility study, which demonstrated according to the Basin Plan (page 4-14, Compliance Schedule) or SIP (Section 2.1, Compliance Schedule), it is infeasible to immediately comply with the WQBELs calculated according to Section 1.4 of the SIP. Therefore, this permit establishes a five-year compliance schedule for final limits based on CTR or NTR criteria (e.g., copper and selenium), a compliance schedule of March 31, 2010, for final limits based on the Basin Plan numeric objectives (e.g., mercury) except for dioxin TEQ. These compliance schedules both exceed the length of the permit, therefore, these calculated final limits are intended for point of reference for the feasibility demonstration and are only included in the findings by reference to the fact sheet. Additionally, the final WQBELs for copper, and mercury will very likely be based on either the Site Specific Objective (SSO) or TMDL/WLA as described in other findings specific to each of the pollutants.

52. During the compliance schedules, interim limits are included based on current treatment facility performance or on existing permit limits, whichever is more stringent to maintain existing water quality. The Board may take appropriate enforcement actions if interim limits and requirements are not met.

Antibacksliding and Antidegradation

53. The interim limits in this permit are in compliance with antidegradation and antibacksliding because (1) the interim limits hold the Discharger to current facility performance or current limitations; and (2) because the final limit is in compliance with anti-backsliding requirements.

Specific Basis

Reasonable Potential Analysis

54. As specified in 40 CFR 122.44(d) (1) (i), permits are required to include WQBELs for all pollutants "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." Using the method prescribed in Section 1.3 of the SIP, Board staff has analyzed the dry weather Discharge E-001 effluent data to determine if this discharge has a reasonable potential to cause or contribute to an excursion above a State water quality standard ("Reasonable Potential Analysis" or

"RPA"). For all parameters that have reasonable potential, numeric water quality-based effluent limitations (WQBELs) are required. The RPA compares the effluent data with numeric and narrative WQOs in the Basin Plan and numeric WQCs from the U.S. EPA Gold Book, the NTR, and the CTR.

55. ***Wet Weather Discharges and Exception to 10:1***

a. In Order No. 79-67, the Board concluded that facilities necessary to achieve the specified long term average wet weather CSO overflow frequencies (see Finding 16, above), provided adequate overall protection of beneficial uses. This order also requires further study of discharges to confined areas. Order No. 89-102 concluded that the CSO discharges met the requirements for an exception to the Basin Plan prohibition against discharges receiving less than 10:1 minimum initial dilution or discharging to a dead-end slough.

For the secondary effluent from the Southeast treatment plant, Board Order No. 96-116 included a finding that the Discharger had met the requirements in the Basin Plan for an exception to the prohibition requiring a minimum initial dilution of at least 10:1 and discharge to a dead-end slough. This Order allowed the wet weather discharge of effluent treated to secondary levels into Islais Creek through the Quint Street (E-002) discharge point. This discharge occurs when the deep-water outfall (E-001) is at capacity.

The exceptions to Basin Plan requirements cited in these previous Orders are still consistent with the Basin Plan. In particular, they are consistent with and implement the approach for wet weather overflows as described in Chapter 4 of the Basin Plan.

b. As specified by the CSO Policy, wet weather effluent from Discharges E-001 through E-006 and CSO wastes CSO 009 through CSO 043 do not have reasonable potential to cause, or contribute to an excursion above any state water quality standard as long as the Discharger implements and maintains the Nine Minimum Control measures and fully implements the Wet Weather Operations Plan. Therefore, the following methods of determining reasonable potential do not apply to wet weather effluent wastes E-001 through E-003 and wastes CSO 009 through CSO 043.

56. ***Reasonable Potential Methodology***. The method for determining reasonable potential involves identifying the observed maximum pollutant concentration in the effluent (MEC) for each constituent, based on effluent concentration data. The RPA for all constituents is based on zero dilution, according to section 1.3 of the SIP. There are three triggers in determining reasonable potential.

a. The first trigger is activated when the maximum effluent concentration (MEC) is greater than the lowest applicable water quality objective (WQO), which has been adjusted for pH, hardness, and translator data, if appropriate. An MEC that is greater than the (adjusted) WQO means that there is reasonable potential for that constituent to cause or contribute to an excursion above the WQO and a water quality based effluent limitation (WQBEL) is required. (Is the MEC>WQO?)
b. The second trigger is activated if observed maximum ambient background concentration (B) is greater than the adjusted WQO and the MEC is less than the adjusted WQO or the pollutant was not detected in any of the effluent samples and all of the detection levels are greater than or equal to the adjusted WQO. If B is greater than the adjusted WQO, then a WQBEL is required. (Is B>WQO?)
c. The third trigger is activated after a review of other information determines that a WQBEL is required even though both MEC and B are less than the WQO. A limit is only required under certain circumstances to protect beneficial uses.

57. ***Summary of RPA Data and Results.*** The RPA was based on dry weather effluent monitoring data for Discharge E-001 from January 1999 through December 2001 for metals, selenium, cyanide, and organic pollutants. For dioxin TEQ, data from August 1995 to November 2001 were used for RPA. Based on the RPA methodology described above and in the SIP, the following constituents have been found to have reasonable potential to cause or contribute to an excursion above water quality objectives: copper, lead, mercury, nickel, silver, zinc, bis(2-ethylhexyl)phthalate, DDE, dieldrin, tributyltin and dioxin TEQ. Based on the RPA, numeric water quality based effluent limits are required to be included in the permit for these constituents. DDE and dieldrin were not detected in any of the Discharger's effluent samples, but all detection levels were above the lowest applicable WQO. However, background concentrations were above the adjusted WQO (trigger #2), therefore RP is affirmed and final limits are included with compliance based on the Minimum Levels in Appendix 4 of the SIP. These Minimum Levels were derived from data provided by State certified analytical laboratories in 1997 and 1998. For dioxin TEQ, only OCDD was measured in the Discharger's E-001 dry weather discharge, but the levels were below the WQO. However, the detection limits for most of the congeners were not low enough to determine compliance with the objective. Dioxin TEQ was detected in the Discharger's Southeast WPCP influent (up to 1.76 pg/L TEQ) and CSO discharges. Also, surveys of other POTWs in the region indicate that dioxin TEQ are present in POTW effluent above the WQO (trigger #3, other information, see Finding 62 for more detailed discussion). Therefore, based on the available information, RP is affirmed for dioxin TEQ.

58. ***RPA Determinations***. The MEC from Discharge E-001 dry weather monitoring, WQOs, basis for the WQOs, background concentrations used and reasonable potential conclusions from the RPA are listed in the following table for all constituents analyzed. The RPA results for most of the constituents in the CTR (Nos. 17-126 except 38, 68,109 and 111) were not able to be determined because of the lack of background data, an objective, or effluent data. (Further details on the RPA can be found in the Fact Sheet.)

Constituent[1]	WQO (µg/L)	Basis[2]	MEC (µg/L)	Maximum Ambient Background Conc. (µg/L)	Reasonable Potential
Arsenic	36	BP, sw	5.1	2.22	No
Cadmium	9.3	BP, sw	5.21	0.13	No
Chromium	50	BP, sw,	9.2	4.4	No
Copper*	3.7	CTR, sw, T=0.83	33.3	2.45	Yes
Lead	5.6	BP, sw	14.9	0.8	Yes
Mercury*	0.025	BP, sw	0.169	0.006	Yes
Nickel*	7.1	BP, sw	8.2	3.5	Yes
Selenium*	5.0	NTR, sw	1.9	0.19	No
Silver	2.3	BP, sw	3.6	0.07	Yes
Zinc	58	BP, sw	364.8	4.6	Yes
Cyanide	1	NTR	All non-detect Detection limit = 10	Not available	No
TBT	0.01	BP, narrative	0.02	Not available	Yes
TCDD TEQ*	1.4x1(	CTR, BP	OCDD detected in effluent. In addition, dioxin TEQ is also detected in Southeast WPCP influent and wet	Not available	Yes

Constituent[1]	WQO (µg/L)	Basis[2]	MEC (µg/L)	Maximum Ambient Background Conc. (µg/L)	Reasonable Potential
			weather discharges		
Bis(2-ethylhexyl)Phthalate	5.9	CTR, hh	7.92	Not available	Yes
Dieldrin*	0.0001	CTR, hh	All non-detect Detection limit = 0.0019	0.000264	Yes[3]
4,4-DDE*	0.0005	CTR, hh	All non-detect Detection limit=0.0018	0.00069	Yes[3]
CTR #s 17-126 except 38, 68, 109 and 111[4]	Various or NA	CTR	Non-detect, less than WQO, or no WQO	Less than WQO or Not Available	No or Undetermined

1. *Constituents on 303(d) list, TCDD TEQ applies to Toxicity Equivalent Quantity (TEQ) of 2,3,7,8 TCDD congeners based on the 1998 WHO toxicity equivalents factors.
2. BP = Basin Plan; CTR = California Toxics Rule; sw = saltwater criteria; hh=human health criteria, H = hardness of 400 in mg/L as CaCO3; T = translator to convert dissolved to total copper.
3. Dieldrin and DDE: RPA is based on B > WQO.
4. Undetermined due to lack of background data, lack of objective, or lack of effluent data (See Fact Sheet Table 3 for full RPA results).

59. ***RPA Results for Impairing Pollutants.*** While TMDLs and WLAs are being developed, interim concentration limits are established in this permit for 303(d) listed pollutants in dry weather discharge from Discharge E-001 that have reasonable potential to cause or contribute to an excursion above the water quality standard. In addition, mass limits are required for bioaccumulative 303(d) listed pollutants that can be reliably detected. Constituents on the 303(d) list for which the dry weather Discharge E-001 RPA determined a need for effluent limitations are copper, mercury, nickel, dioxin TEQ, and dieldrin. This list also includes 4,4-DDE because although 4,4-DDE is not directly listed under the 303(d) list, it is a breakdown product of DDT, which is one of the pollutants impairing the central San Francisco Bay. Final determination of dry weather discharge from Discharge E-001 RPA for other constituents identified on the 303(d) list could not be performed due to lack of available effluent data, lack of background data or lack of an established water quality objective or criterion.

60. ***Interim Limits with Compliance Schedules***.
    a. On April 25, 2002, the Discharger submitted a feasibility study, to demonstrate that it is infeasible to immediately comply with the WQBELs calculated according to Section 1.4 of the SIP for Waste E-001. The Board concurs that it is infeasible for the Discharger to immediately comply with the effluent limitations for copper, mercury, and dioxin TEQ. Therefore, this Order establishes compliance schedules for these pollutants. For limits based on CTR (e.g., copper), this Order establishes a five-year compliance schedule as allowed by the CTR and SIP. For limits based on the Basin Plan numeric objectives (e.g., mercury), this Order establishes a compliance schedule until March 31, 2010. The Basin Plan provides for a 10-year compliance schedule for implementation of measures to comply with new standards as of the effective date of those standards. This provision has been construed to authorize compliance schedules for new interpretations of existing standards, such as the numeric water quality objectives specified in the Basin Plan, resulting in more stringent limits than in the previous permit. Due to the adoption of the SIP, the Board has newly interpreted these objectives. As a result of applying the SIP

methodologies, the effluent limitations for some pollutants are more stringent than the prior permit. Accordingly, a compliance schedule is appropriate here for the new limits for these pollutants.

b. Since the compliance schedules for CTR criteria and Basin Plan numeric water quality objectives both exceed the length of the permit which is 4 years and 11 months, therefore, these calculated final limits are intended as points of reference for the feasibility demonstration and are only included in the findings by reference to the fact sheet. Additionally, the actual final WQBELs for these pollutants will very likely be based on either the Site Specific Objective (SSO) or TMDL/WLA as described in other findings specific to each of the pollutants.

Specific Pollutants

61. *Polynuclear Aromatic Hydrocarbons (PAHs).* The RPA was conducted on individual PAHs, not total PAHs, as required by the SIP and CTR. The effluent monitoring data set is based on sampling results from 1998 to 2001. All of the concentrations were reported as non-detected with detection limits higher than the WQOs. Background concentrations were all below the WQOs. Based on the SIP, there is insufficient data to determine reasonable potential. Provision F.3 requires the Discharger to characterize the effluent for individual PAH constituents listed in Table 2 of the SMP with improved detection limits. Upon completion of the required effluent monitoring, the Board will use the gathered data to complete the RPA for all individual PAH constituents (as listed in the CTR) and determine if a water quality-based effluent limitation is required.

CTR Number	Constituent	WQO[1] (µg/L)	MEC[2] (µg/L)	B	RP[3]
60	Benzo(a)Anthracene	0.049	ND (Min. DL 0.84)	0.0053	U
61	Benzo(a)Pyrene	0.049	ND (Min. DL 1.21)	0.0025	U
62	Benzo(b)Fluoranthene	0.049	ND (Min. DL 1.65)	0.0046	U
64	Benzo(k)Fluoranthene	0.049	ND (Min. DL 1.14)	0.0015	U
73	Chrysene	0.049	ND (Min. DL 1.01)	0.0041	U
74	Dibenzo(a,h)Anthracene	0.049	ND (Min. DL 1.41)	0.0006	U
92	Indeno(1,2,3-cd) Pyrene	0.049	ND (Min. DL 1.35)	0.004	U

1. WQO based on the numeric WQO for protection of human health through consumption of organisms only.
2. All Discharger data was non-detect with minimum detection limit ranged from 0.84 to 1.65 µg/L.
3. U = Undetermined. All RPA results are undetermined due to detection levels higher than WQOs.
4. ND=Non-detect
5. DL=reported detection limit

62. *4,4 DDE and Dieldrin.* Board staff could not determine an MEC for 4,4 DDE and dieldrin because it was not detected in the effluent, and all of the detection limits are higher than lowest WQO (Section 1.3 of the SIP). Board staff conducted the RPA by comparing the WQO with RMP ambient background concentration data gathered using research-based sample collection, concentration, and analytical methods. The RPA indicates that 4,4 DDE and dieldrin have reasonable potential, and numeric WQBELs are required.

63. The current 303(d) list includes central and lower San Francisco Bay as impaired for dieldrin and DDT. 4,4 DDE is chemically linked to the presence of DDT. The Board intends to develop TMDLs

that will lead towards overall reduction of dieldrin and 4,4-DDE. The water quality-based effluent limits specified in this Order may be changed to reflect the WLAs from this TMDL. To assist the Board in developing TMDLs, the Discharger has the option to participate in a special study, through the RMP, or other mechanism, to investigate the feasibility and reliability of different methods of increasing sample volumes to lower the detection limit for these compounds. Furthermore, the Discharger should submit the preferred method to U.S. EPA for approval. If analytical methodologies improve and the detection levels decrease to a point that show discharge concentrations above the limit in this Order, the Board will re-evaluate the Discharger's feasibility to comply with the limits and determine the need for a compliance schedule and interim performance limits at that time. Since dieldrin and 4,4-DDE are both bioaccumulative and on the 303(d) list due to fish tissue concentrations, there is no assimilative capacity, and no dilution credit was allowed in the final limit calculations.

64. *Dioxin TEQ.*

a. The CTR establishes a numeric human health WQO of 0.014 picograms per liter (pg/L) for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) based on consumption of aquatic organisms**.**

b. The preamble of the CTR states that California NPDES permits should use toxicity equivalents (TEQs) where dioxin-like compounds have reasonable potential with respect to narrative criteria. The preamble further states that U.S. EPA intends to use the 1998 World Health Organization Toxicity Equivalence Factor (TEF)[1] scheme in the future and encourages California to use this scheme in State programs. Additionally, the CTR preamble states U.S. EPA's intent to adopt revised water quality criteria guidance subsequent to their health reassessment for dioxin-like compounds.

c. The SIP addresses toxic priority pollutants, including dioxins and furans. The SIP requires a limit for 2,3,7,8-TCDD if a limit is necessary, and requires twice per year monitoring for a minimum of 3 years by all major NPDES Dischargers for the other sixteen dioxin and furan compounds.

d. The Basin Plan contains a narrative WQO for bio-accumulative substances:
"Many pollutants can accumulate on particulates, in sediments, or bio-accumulate in fish and other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered."
This narrative WQO applies to dioxin and furan compounds, based in part on scientific consensus that these compounds associate with particulates, accumulate in sediments, and bio-accumulate in the fatty tissue of fish and other organisms.

e. The U.S. EPA's 303(d) listing determined that the narrative objective for bio-accumulative pollutants was not met because of the levels of dioxins and furans in the fish tissue. In addition, OCDD was detected in the Discharger's E-001 dry weather samples, and discharge data from the Discharger's CSO monitoring and surveys of other POTWs in the region indicate that there are a number of dioxins and furans present in the POTW effluent. Also, on March 10, 2000, the Discharger submitted a draft report titled Dioxin in San Francisco Wastewater. The report indicated that during the study period dioxin TEQ was detected in the Southeast Water Pollution Control Plant influent at concentrations greater than the water quality criterion (0.95 pg/L vs.

[1] The 1998 WHO scheme includes TEFs for dioxin-like PCBs. Since dioxin-like PCBs are already included within "Total PCBs", for which the CTR has established a specific standard, dioxin-like PCBs are not included in this Order's version of the TEF scheme.

0.014 pg/L). Since dioxins and furans do not readily breakdown, there is a reasonable potential for the Discharger to contribute to the impairment of the narrative objective.

65. Tributyltin.
    a. The criterion for tributyltin is the USEPA chronic water quality criteria of 0.01 ug/l (CCC) and 0.37 ug/l (CMC) for the protection of marine water aquatic life. Based on best professional judgment, the application of these criteria is necessary to ensure protection of the Basin Plan's narrative objective for toxicity.
    b. Tributyltin was detected twice in the Discharger's effluent. Out of the four sample taken by the Discharger, two was non detect with detection limit greater than the chronic criteria. The maximum effluent concentration from the two remaining data points was 0.02 μg/L, which is greater than the chronic criterion. Therefore, there is a reasonable potential for the Discharger to contribute to the exceedance of the narrative objective.

66. *Other organics*. The Discharger has performed organics sampling once a year as required by the previous permit (Order No. 94-149). This sampling effort has covered most of the organic constituents listed in the CTR. This data set was used to perform the RPA for other organics. The full RPA is presented as an attachment in the Fact Sheet. In most cases (about 100 out of the 126 priority pollutants), reasonable potential cannot be determined because detection limits are higher than the lowest WQOs and/or ambient background concentrations are not available. The Discharger will continue to monitor for these constituents in the effluent and the receiving water using analytical methods that provide the best feasible detection limits. When sufficient data are available, a reasonable potential analysis will be conducted to determine whether to add numeric effluent limitations to the Order or to continue monitoring.

67. The Board recognizes that the SIP requirements relating to RPA and calculation of effluent limitation referenced in this permit do not specifically apply to dioxin TEQ and tributyltin because these pollutants are not in the CTR. However, Board staff finds the approach outlined in the SIP for other toxic pollutants is an appropriate and reasonable approach. As indicated above, based on available information, there was reasonable potential for dioxin TEQ and tributyltin to exceed the narrative WQO for bio-accumulative substances, so WQBELs are necessary.

68. *Effluent RP Monitoring*. This Order does not include effluent limitations for constituents that do not show a reasonable potential, but continued monitoring for many of them is required in the Provision of this Order. If concentrations of these constituents increase significantly, the Discharger will be required to investigate the source of the increases and establish remedial measures if the increases result in a reasonable potential to cause or contribute to an excursion above the applicable water quality standard.

69. *Permit Reopener*. The Order includes a reopener provision to allow numeric effluent limitations to be added or deleted in the future for any constituent that exhibits or does not exhibit, respectively, reasonable potential. The Board will make this determination based on monitoring results.

Development of Effluent Limitations

Interim Limits with Compliance Schedules.

70. The Discharger has demonstrated infeasibility to meet the WQBELs calculated according to Section 1.4 of the SIP for copper, mercury and dioxin TEQ, thereby complying with the infeasibility requirements in Section 2.1 of the SIP. This Order establishes compliance schedules for these pollutants that extend beyond one year. Pursuant to the SIP, and 40 CFR 122.47, the Board shall establish interim numeric limitations and interim requirements to control the pollutant. Except as

authorized in the SIP and discussed elsewhere in this Order, this Order establishes interim limits for these pollutants based on the previous permit limits or plant performance, whichever is more stringent. Specific basis for these interim limits are described in the following findings for each pollutant. This Order also establishes interim requirements in a provision for development and/or improvement of a Pollution Prevention Program to reduce pollutant loadings to the treatment plant, and for submittal of annual reports on this Program. The Discharger has committed to support development of TMDLs for pollutants which its discharge may be contributing to the impairment. BACWA, which the Discharger is a member of, has entered into a Memorandum of Understanding with the Board to accelerate development of these TMDLs to reduce overall loading of these pollutants to the Bay.

Copper

71. CTR *Copper Water Quality Objectives*. Copper is listed on the 303(d) list as a pollutant that is impairing central and lower San Francisco Bay. The saltwater objective for copper in the adopted CTR is 3.1 µg/L dissolved copper. Included in the CTR are translator values to convert the dissolved objectives to total objectives. The Discharger may perform a translator study to determine a more site-specific translator. The SIP, Section 1.4.1, and the June 1996 U.S. EPA guidance document, entitled *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion,* describe this process and provides guidance on how to establish a site-specific translator.

72. *Water-Effects Ratios*. The CTR provides for adjusting the criteria by deriving site-specific objectives through application of the water-effect ratio (WER) procedure. The U.S. EPA includes WERs to assure that the metal criteria are appropriate for the chemical conditions under which they are applied. A WER accounts for differences between a metal's toxicity in laboratory dilution water and its toxicity in water at the site. The U.S. EPA's February 22, 1994 Interim Guidance on Determination and Use of Water Effects Ratios for Metals superseded all prior U.S. EPA guidance on this subject. If the Discharger decides to pursue SSOs, they shall be developed in accordance with procedures contained in Section 5.2 of the SIP.

73. *Interim Effluent Limitation for Copper.* For Discharge E-001 during dry weather, this Order contains a limit for copper WQBEL because the 1998 303(d) list includes central and lower San Francisco Bay as impaired by copper, and because, based on the RPA, staff determined that there is reasonable potential for exceedances in the WQO for copper in Discharge E001 dry weather discharges. The Discharge E-001 dry weather final WQBEL for copper will be based on the SSO or WLA contained in a TMDL if one is completed. The SIP requires the interim numeric effluent limit for the pollutant be based on either current treatment facility performance, or on the previous Order's limitation, whichever is more stringent. This Order establishes an interim daily maximum copper limit of 37 µg/L for Discharge E-001 during dry weather.

74. *Treatment Plant Performance and Compliance Attainability for Copper.* Effluent concentrations during the recent three years (January 1998 - December 2001) range from 4.9 to 33.3 µg/L (136 samples). The effluent discharged to lower San Francisco Bay has been in consistent compliance with the previous permit limit of 37 µg/L.

Mercury

75. *Mercury Water Quality Objectives.* Both the Basin Plan and CTR include objectives that govern mercury in the receiving water. The Basin Plan specifies objectives for the protection of aquatic life of 0.025 µg/L as a 4-day average and 2.1 µg/L as a 1-hour average. The CTR specifies a long-term average criterion for protection of human health of 0.051 µg/L.

76. *Mercury TMDL*. The current 303(d) list includes the receiving water as impaired by mercury, due to high mercury concentrations in the tissue of fish from the Bay. Methyl-mercury is a persistent bioaccumulative pollutant. The Board intends to establish a TMDL that will lead towards overall reduction of mercury mass loadings into the San Francisco Bay watershed. The final mercury limitation will be based on the Discharger's WLA in the TMDL, and the permit will be revised to include the final water quality-based effluent limit as an enforceable limitation.

77. *Mercury Control Strategy*. Board staff is developing a TMDL to control mercury levels in San Francisco Bay. The Board, together with other stakeholders, will cooperatively develop source control strategies as part of TMDL development. Municipal discharge point sources are not the most significant mercury loadings to the Estuary according to the Board's staff report titled "Watershed Management of Mercury in the San Francisco Bay Estuary: Total Maximum Daily Load Report to the U.S. EPA", dated June 30, 2000. Therefore, the currently preferred strategy is applying interim mass loading limits to point source discharges while focusing mass reduction efforts on other more significant and controllable sources. While the TMDL is being developed, the Discharger will cooperate in maintaining ambient receiving water conditions by complying with performance-based mercury mass emission limits. Therefore, this Order includes interim concentration and mass loading effluent limitations for mercury for Waste E-001 during dry weather. The Discharger is required to implement source control measures and cooperatively participate in special studies as described below.

78. *Interim Concentration-Based Mercury Effluent Limitation.* This Order establishes a Discharge E-001 dry weather interim monthly average limit for mercury based on staff's analysis of the performance of over 20 secondary treatment plants in the Bay Area. This analysis is described in a Board staff report titled "Staff Report, Statistical Analysis of Pooled Data from Region-wide Ultra-clean Mercury Sampling", dated June 11, 2001. The objective of the analysis is to provide an interim concentration limit that characterizes regional facility performance using only ultra-clean data and compliance of which will ensure no further degradation of the receiving water quality resulting from the discharge. The conclusions of the report demonstrate that the statistical performance based mercury limit for a secondary plant is 87 ng/L, and for an advanced secondary plant is 23 ng/L.

79. The Discharger designed and operates the Southeast Water Pollution Control Plant as a secondary-level treatment plant; therefore the value of 87 ng/L is an appropriate interim limit. Based on Board staff's report titled "Watershed Management of Mercury in the San Francisco Bay Estuary: Total Maximum Daily Load Report to U.S. EPA," dated June 30, 2000, municipal sources are a very small contributor of the mercury load to the Bay. Because of this, it is unlikely that the TMDL will require reduction efforts beyond the source controls required by this permit.

80. *Interim Mass-Based Mercury Effluent Limitation*. This Order establishes an interim mercury mass-based effluent limitation for Discharge E-001 during dry weather. Based on treatment plant performance at the 99.87 percentile value (or average + 3* standard deviation) from effluent data gathered from April 1998 through April 2001, the total mass loadings were calculated using a 12-month moving average. This mass based effluent limitation maintains current loadings until a TMDL is established and is consistent with state and federal antidegradation and antibacksliding requirements. The final mass based effluent limitation will be based on the WLA derived from the mercury TMDL.

81. *Treatment Plant Performance and Compliance Attainability.* The Discharger started using ultra-clean method for mercury analysis in 1998. Dry weather effluent Discharge E-001 mercury concentrations from January 1999 through December 2001 ranged from 3 to 169 ng/L (136 samples). The dry

weather Waste E-001 discharged to lower San Francisco Bay has exceeded the interim limit of 87 ng/L only 4 times out of the 136 sampling events. Therefore, it is the Board staff's best professional judgment that the interim limit of 87 ng/L is attainable for the Discharger.

82. *Mercury Source Control and Special Studies*. This Order requires the Discharger to develop and implement a source control program. The source control program should maximize the Discharger's control over mercury sources in its influent, and should optimize costs and benefits. The Discharger has voluntarily implemented an aggressive mercury source control program for several years. This program has resulted in San Francisco being one of the first cities in the United States to place a regulatory ban on the sale of and discourage the use of mercury fever thermometers. Considerable work has been performed to quantify mercury loads from dentists, the primary controllable source of mercury in the Discharger's influent, and to educate the dentist community to further reduce waste and emissions. The Discharger shall maintain their existing program with continued outreach to the dentist community. The Discharger should continue cooperating with other municipal Dischargers in broader efforts to maximize mercury source control and pollution prevention efforts, assess alternatives for reducing mercury loading to receiving waters, and protect their beneficial uses. In addition, the Discharger's treatment of combined sewage during wet weather provides for additional treatment of stormwater, thereby providing additional treatment of mercury. This Order contains a time schedule for the mercury source control program.

Dioxin TEQ

83. *Numerical Water Quality Objective.* The CTR establishes a numeric human health WQO of 0.014 picograms per liter (pg/L) for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) based on consumption of aquatic organisms. A Finding above discusses the use of TEQ's for other dioxin-like compounds, the RPA procedures, and SIP requirements. Staff used TEQs to translate the narrative WQOs to numeric WQOs for the other 16 congeners.

84. This Order establishes that a final limit for dioxin TEQ will be based on the waste load allocated to the Discharger from the TMDL. The detection limit used by the Discharger is insufficient to determine the concentration of the dioxin congeners. Therefore, an interim limit for dioxin TEQ cannot be calculated. A compliance schedule is warranted because it is infeasible for the Discharger to comply with a new, more stringent WQBEL calculated pursuant to the SIP. The following findings describe the factors considered for these requirements.

    a. The Board recognizes that the primary source of dioxins and furans in the Bay Area is from air emissions from combustion sources. The root cause of the dioxin detections in the Discharger's effluent are not within the Discharger's control, and the next step of treatment will be overly burdensome and not cost effective relative to the benefits. The detections are caused by dioxins and furans compounds in domestic waste and storm water. Even with this technology, dioxin and furans concentrations cannot be further removed without significant upgrades to the facility. Based on preliminary data, the Discharger's mass contribution is minor compared to other inputs to the Bay. This cost for further reduction seems overly burdensome and not cost effective at this time.

    b. The U.S. EPA's 303(d) listing highlights the need for a region-wide cross media assessment of the problem. This integrated assessment should result in a more balanced, and more effective water quality based limitation for the Discharger.

    c. To assist in developing the TMDL, the Discharger has already completed an extensive special study of dioxin and will investigate the feasibility and reliability of different methods of

increasing sample volumes to lower the detection limits for these dioxin and furan compounds. Furthermore, the Discharger should submit the preferred method to the U.S. EPA for approval.

85. Basis for Compliance Timeframe for Dioxin and Furans

a. This Order specifies a 10-year compliance time schedule until June 30, 2012. Both the SIP and the Basin Plan authorize compliance schedules if it is infeasible for the Discharger to meet more stringent WQBELs. The SIP states that the "Discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML [minimum level]." This implies that compliance will be determined at the ML when the effluent limitation is below the ML. However, there is no ML for dioxins and furans in the SIP. As a result, the Discharger's compliance with the new calculated WQBEL for dioxins and furans cannot be determined at this time. In such cases, the SIP and Basin Plan allow for a compliance schedule if the Discharger provides satisfactory justification. On April 25, 2002, the Discharger submitted feasibility studies to evaluate immediate compliance with the new calculated WQBELs. Based on Board staff's evaluation, the Discharger satisfies the conditions under which to grant a compliance schedule.

b. There is no interim limitation for dioxin TEQ specified in this Order because there is insufficient data with low enough detection limits. Instead, this Order requires the Discharger to investigate lowering the detection limit of dioxin and furan congeners, and to conduct additional dioxin TEQ monitoring for interim limit calculation purposes because:

i. An interim dry weather limitation for Discharge E-001 is necessary because both the CTR and the State Implementation Policy require a numeric interim limit when the compliance schedule exceeds 1 year. The SIP allows for the interim limit to be based on facility performance or existing permit limitations, which ever is more stringent.

ii. Current facility performance is represented by 12 sampling events taken at Discharge E-001 during dry weather from August 1995 through November 2000. OCDD was detected three times during this period.

iii. Wet weather facility performance is represented by 16 sampling events taken at Discharge E-002 from December 1995 through March 2001. Dioxin TEQ was detected at 1.07 pg/L.

iv. On March 10, 2000, the Discharger submitted a draft report titled *Dioxin in San Francisco Wastewater*. The report indicated that, during the study period dioxin TEQ was detected in the Southeast Water Pollution Control Plant influent at concentrations greater than the water quality criterion (0.95 pg/L vs. 0.014 pg/L).

v. Because the wet weather concentrations are about a hundred times above the water quality criterion and because dioxin TEQ is detected in the facility's dry weather influent, it is reasonable to use these data to conclude that the discharge has a reasonable potential to cause or contribute to exceedance of the standard. However, because they are estimated values, SIP excludes the use of wet weather data for CSO facilities, and because the dry weather sampling events are all non detect, these data are not sufficient to derive a performance based interim limit.

Bis(2-ethylhexyl)phthalate

86. Bis(2-ethylhexyl)phthalate. Bis(2-ethylhexyl)phthalate was detected twice in the Discharger's dry weather Discharge E-001 effluent, 7.9 µg/L and 1.3 µg/L. Where the 7.9 µg/L is greater than the WQO of 5.9 µg/L. Therefore, reasonable potential is confirmed under the first trigger, above. Therefore, an interim limit is required. Since there are only two detected effluent data points available it is not possible to perform a statistical analysis to determine an Interim Performance Based Effluent Limit (IPBEL). Without an IPBEL, or previous permit limit, no interim limitation can be established. This order requires the Discharger to conduct accelerated monitoring to gather data for interim limit calculation.

Tributyltin

87. Tributyltin. Tributyltin was detected twice in Discharge E-001 dry weather effluent. The observed MEC is at a concentration of 0.02 µg/L, which is greater than the USEPA criterion of 0.01 µg/L. Therefore, reasonable potential is confirmed under the first trigger, above. There are no ambient background data on tributyltin in the receiving water, and it is not possible to calculate final WQBELs for this pollutant. Therefore, an interim limit is required. Since there are only two detected effluent data points available it is not possible to perform a statistical analysis to determine an IPBEL. In addition, the previous permit does not contain an effluent limit for tributyltin. Without an IPBEL, or previous permit limit, no interim limitation can be established. This order requires the Discharger to conduct accelerated monitoring to gather data for interim limit calculation.

Final Effluent Limit.

Lead

88. Water Quality Objective. The Basin Plan contains numeric WQOs for total lead of 5.6 µg/L and 140 µg/L for chronic and acute toxicity, respectively. No translator value is needed.

89. Effluent Limitations. The final WQBELs for lead were calculated pursuant to procedures in the SIP, and are calculated as 89 µg/L and 36 µg/L daily maximum and monthly average, respectively (see the attached Fact Sheet for details).

90. Treatment Plant Performance and Compliance Attainability. The Discharge E-001 dry weather MEC reported for lead since 1999 has been 14.9 µg/L. The monthly average effluent limit (AMEL), calculated as required by Section 1.4 of the SIP, is 36 µg/L, as noted above. Based on the comparison of the MEC to the AMEL, the Discharger can comply with the final WQBELs.

Nickel

91. Water Quality Objective. The Basin Plan contains numeric WQOs for total nickel of 7.1 µg/L and 140 µg/L for chronic and acute toxicity, respectively. No translator value is needed.

92. Effluent Limitations. The final WQBELs for nickel were calculated pursuant to procedures in the SIP, and are calculated as 59 µg/L and 34 µg/L daily maximum and monthly average, respectively (see the attached Fact Sheet for details). These WQBELs may be revised in the future based on the TMDL/WLA or the results of the SSO and translator studies. The current 303(d) list includes Lower San Francisco Bay as impaired by nickel. The Discharger is participating in impairment assessment studies aimed at gathering additional data on nickel concentrations in Lower San Francisco Bay. The Board has considered these studies in its 303(d) listing decision in 2001, and when considering any SSO proposed for nickel. The nickel WQBEL would be developed consistent with SIP procedures in Section 5.2 if the impairment studies support adoption of a SSO. On November 28, 2001, the Board considered a staff report on Proposed Revisions to Section 303(d) List and Priorities for Development of Total Maximum Daily Loads (TMDLs) for the San Francisco Bay Region and authorized the Executive Officer to transmit proposed revisions to the State Board. Nickel is proposed to be de-

listed from all segments of the San Francisco Estuary north of the Dumbarton Bridge including Lower San Francisco Bay but excluding the tidal portion of the mouth of Petaluma River.

93. Treatment Plant Performance and Compliance Attainability. The dry weather Discharge E-001 MEC reported for nickel since January 1999 has been 8.2 µg/L. The monthly average effluent limit (AMEL), calculated as required by Section 1.4 of the SIP, is 34 µg/L, as noted above. Based on the comparison of the MEC to the AMEL, the Discharger can comply with the final dry weather Discharge E-001 WQBELs.

Silver

94. Water Quality Objective. The Basin Plan contains a numeric WQO for total silver of 2.3 µg/L. No translator value is needed.

95. Effluent Limitations. The calculated final dry weather Discharge E-001 WQBELs for silver are an average monthly value of 12 µg/L and daily maximum value of 22 µg/L (See the attached Fact Sheet for details).

96. Treatment Plant Performance and Compliance Attainability. The dry weather Discharge E-001 MEC since January 1999 has been 3.6 µg/L. Based on the comparison of the 3.6 µg/L MEC and the 11.8 µg/L AMEL calculated based on Section 1.4 of the SIP, the Discharger can comply with the final WQBELs.

Zinc

97. Water Quality Objective. The Basin Plan contains a numeric WQO for total zinc of 58.0 µg/L as 24-hour averaged. No translator value is needed.

98. Effluent Limitations: The calculated final dry weather Discharge E-001 WQBELs for zinc are 720 µg/L and 490 µg/L for daily maximum and monthly average, respectively (See the attached Fact Sheet for details).

99. Treatment Plant Performance and Compliance Attainability. The dry weather Discharge E-001 MEC since January 1999 has been 364.8 µg/L. Based on the comparison of the 364.8 µg/L MEC and the 490 µg/L AMEL calculated based on Section 1.4 of the SIP, the Discharger can comply with the final WQBELs.

Bis(2-ethylhexyl)phthalate

100. No dilution credit is allowed in the calculation of effluent limitations for bis(2-ethylhexyl)phthalate, a bioaccumulative pollutant that is not on the 303(d) list until there is data and information to demonstrate the assimilative capacity in the receiving water for this pollutant and to justify a dilution credit. This cautious approach is appropriate because of the greater potential for adverse impacts to biota from bioaccumulative pollutants as compared to non-bioaccumulative pollutants. Waiting for a 303(d) listing before denying dilution credits would allow impairment to occur which is contrary to the goal of water quality based permits The Discharger is required, by the August 6th letter, to collect ambient background data to characterize the concentration levels of bis(2-ethylhexyl)phthalate in the Bay. The Regional Monitoring Program also periodically collects sediment and fish tissue data from the main channel of the Bay. The Discharger may supplement these data with data closer to its outfall. Once the data are collected, Board staff can reassess the potential assimilative capacity, and establish dilution credits if appropriate.

Section 1.4.2 of the SIP states that the Regional Board has the discretion to allow mixing zone and dilution credit in accordance with the provisions of the section. Section 1.4.2.2.B states that:

"*The RWQCB shall deny or significantly limit a mixing zone and dilution credit as necessary to protect beneficial uses, meet the conditions of this Policy, or to comply with other regulatory requirements. Such situations may exist based upon the quality of the discharge, hydraulics of the water body, or the overall discharge environment (including water column chemistry, organism health, and potential for bioaccumulation). For example, in determining the extent of or whether to allow a mixing zone and dilution credit, the RWQCB shall consider the presence of pollutants in the discharge that are carcinogenic, mutagenic, teratogenic, persistent, bioaccumulative, or attractive to organisms. In another example, the RWQCB shall consider, if necessary to protect beneficial uses, the level of flushing in water bodies in such lakes, reservoirs, enclosed bays, estuaries or other water bodies types where pollutants may not be readily flushed through the system. In the case of multiple mixing zones, proximity to other outfalls shall be carefully considered to protect beneficial uses.*"

Evidence of Bioaccumulation for Bis(2-ethylhexyl)phthalate

Bis(2-ethylhexyl)phthalate is a bioaccumulative pollutant, similar to other pollutants currently on the 303(d) list as impairing the Bay. Generally, bioaccumulation is most likely to occur with persistent and very hydrophobic chemicals; that is, those with log K_{ow} values from 5 to 8 (U.S. EPA Bioaccumulation and Bioconcentration Screening, page 7.4). See the table below for a comparison of these chemical characteristics.

Chemical	Log K_{ow}	303(d) Listed (yes or no)
bis(2-ethylhexyl)phthalate	5.1	No
4-4 DDE	5.7	Yes
Dieldrin	4.6	Yes
Aroclor-1260	7.1	Yes

Based on the SIP and the similar bioaccumulative characteristics to other pollutants already listed as impairing the Bay, Board finds that it is appropriate and necessary to deny mixing zone and dilution credits for bis(2-ethylhexyl)phthalate.

Whole Effluent Acute Toxicity

101. This Order includes effluent limits for whole-effluent acute toxicity. Compliance evaluation is based on 96-hour flow-through bioassays. U.S. EPA promulgated updated test methods for acute and chronic toxicity bioassays on October 16, 1995, in 40 CFR Part 136. Dischargers have identified several practical and technical issues that need to be resolved before implementing the new procedures, referred to as the 4th Edition. The primary unresolved issue is the use of younger, possibly more sensitive fish, which may necessitate a reevaluation of permit limits. SWRCB staff recommended to the Board that new or renewed permit holders be allowed a time period in which new laboratories can become proficient in conducting the new tests. A provision is included in this Order granting the Discharger 12 months to implement the new test method. In the interim, the Discharger is required to continue using the current test protocols.

Whole Effluent Chronic Toxicity

102. a. *Program History.* The Basin Plan contains a narrative toxicity objective stating that "All waters shall be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses to aquatic organisms" and that "there shall be no chronic toxicity in ambient waters." In 1986, the Board initiated the Effluent Toxicity Characterization Program (ETCP), with the goal of developing and implementing toxicity limits for each Discharger based on actual characteristics of both receiving waters and waste streams. Dischargers were required to monitor their effluent using critical life stage toxicity tests to generate information on toxicity test species sensitivity and effluent variability to allow development of appropriate chronic toxicity effluent limitations. In 1988 and 1991, selected Dischargers conducted two rounds of effluent characterization. A second round was completed in 1995, and the Board is evaluating the need for a third round. Board guidelines for conducting toxicity tests and analyzing results were published in 1988 and last updated in 1991. The Board adopted Order No. 92-104 in August 1992 amending the permits of eight Dischargers to include numeric chronic toxicity limits. However, due to the court decision which invalidated the California Enclosed Bays and Estuaries Plan and Inland Surface Waters Plan, on which Order No. 92-104 was based, the SWRCB stated, by letter dated November 8, 1993, that the Board will have to reconsider the order. In the meantime, permits now include narrative rather than numeric limits. The numeric test values should then be used as toxicity "triggers" to first accelerate monitoring and then initiate Toxicity Reduction Evaluations (TREs).

b. *Board Program Update*. The Board intends to reconsider Order No. 92-104 as directed by the SWRCB, and to update, as appropriate, the Board's Whole Effluent Toxicity (chronic and acute) program guidance and requirements. This will be done based on analysis of Discharger routine monitoring and ETCP results, and in accordance with current and SWRCB guidance. In the interim, decisions regarding the need for and scope of chronic toxicity requirements for individual Dischargers will continue to be made based on BPJ as indicated in the Basin Plan.

c. *Discharge Monitoring.* The Discharger initiated another round of ETCP screening in May through July 2001. Results from the May and June 2001 test events indicated that the three most sensitive species to the Southeast effluent were the invertebrates *Mytilus sp.* (mussel)*, Haliotis rufescens* (abalone)*,* and *Strongylocentrotus purpuratu* (echinoderm/urchin). Literature research indicates that all three species are sensitive to ammonia, with both abalone and echinoderms being more sensitive to ammonia than mussels. In July 2001, January, and February 2002, the Discharger conducted another three rounds of screening. This time Toxicity identification evaluation (TIE) manipulations were used to determine whether or not ammonia contributed to the toxic responses of abalone and urchin to the Southeast effluent. Parallel screening tests were run using ammonia stripped effluent and ammonia stripped effluent with ammonia spike. The results concluded that ammonia contributed to the toxic response of all three species. In addition, it also showed that Echinoderm development appears to be most sensitive to Southeast effluent following zeolite treatment to remove ammonia toxicity and should replace the current use of bivalves for NPDES compliance chronic toxicity testing.

d. *Permit Requirements.* In accordance with U.S. EPA and SWRCB Task Force guidance, and based on BPJ, this Permit includes requirements for chronic toxicity monitoring based on the Basin Plan narrative toxicity objective. This Permit includes the Basin Plan narrative toxicity objective as the applicable effluent limit, implemented via monitoring with numeric values as "triggers" to initiate accelerated monitoring and to initiate a chronic toxicity reduction evaluation (TRE).

e. *Permit Reopener*. The Board will consider amending this Permit to include numeric toxicity limits if the Discharger fails to aggressively implement all reasonable control measures included in its approved TRE work plan, following detection of consistent significant non-artifactual toxicity.

Pollution Prevention and Pollutant Minimization

103. The Discharger has an approved Pretreatment Program and has established a Pollution Prevention Program under the requirements specified by the Board in the Basin Plan.
    a. Section 2.4.5 of the SIP specifies under what situations and for which priority pollutant(s) (i.e., reportable priority pollutants) the Discharger shall be required to conduct a Pollutant Minimization Program in accordance with Section 2.4.5.1.
    b. There may be some redundancy required between the Pollution Prevention Program and the Pollutant Minimization Program.
    c. Where the two programs' requirements overlap, the Discharger is allowed to continue/modify/expand its existing Pollution Prevention Program to satisfy the Pollutant Minimization Program requirements.
    d. For copper and mercury, the Discharger will conduct any additional source control measures in accordance with California Water Code 13263.3 and Section 2.1 of the SIP. Section 13263.3 establishes a separate process outside of the NPDES permit process for preparation, review, approval, and implementation of such source control and pollutant minimization measures.

104. The Board staff intends to require an objective third party to establish model programs, and to review program proposals and reports for adequacy. This is to encourage use of Pollution Prevention and does not abrogate the Board's responsibility for regulation and review of the Discharger's Pollution Prevention Program. Board staff will work with the Discharger and other POTWs to identify the appropriate third party for this effort.

Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations

105. *Insufficient effluent and ambient background data*. Staff's review of the effluent and ambient background monitoring data found that there were insufficient data to determine reasonable potential and calculate numeric WQBELs for most pollutants listed in the SIP.

106. On August 6, 2001, the Board sent a letter to all permitted dischargers, including the Discharger, pursuant to Section 13267 of the California Water Code requiring the submittal of effluent and receiving water data on priority pollutants. This formal request for technical information addresses the insufficient effluent and ambient background data; and the dioxin study. BACWA submitted the sampling plan on October 1, 2001. An interim report presenting the data is due May 18, 2003, with the final report due 180 days prior to expiration of the permit.

107. The letter (described above) is referenced throughout the permit as the "August 6, 2001 Letter". The requirements of this letter are incorporated as a provision in this Order.

Optional Studies

108. *Optional Mass Offset.* This Order contains requirements to prevent further degradation of the impaired water body. Such requirements include the adoption of interim mass limits that are based on treatment plant performance, provisions for aggressive source control, feasibility studies for wastewater reclamation, and treatment plant optimization. After implementing these efforts, the Discharger may find that further net reductions of the total mass loadings of the 303(d)-listed

pollutants to the receiving water can only be achieved through a mass offset program. This Order includes an optional provision for a mass offset program.

109. *Copper Translator Study.* The Basin Plan does not establish a water quality objective for copper. Therefore, the CTR water quality criterion for copper, 3.1 µg/L dissolved, is the applicable standard. Since NPDES permit limits must be expressed as a total recoverable metal value, a translator is required to convert the dissolved objective into a total recoverable objective. Pursuant to Appendix 3 of the SIP, the default translator used in this permit is 0.83, which converts the 3.1 µg/L dissolved to 3.7 µg/L total. An optional copper translator study is included in this permit to encourage the Discharger to develop a local translator value for copper in place of the default translator value established in the SIP, 0.83.

110. *Odor:* The Discharger has received odor complaints from various locations in its service area. Standard Provisions Section A.1. of this Order specifies that "neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code." Odors fall under the definition for nuisance. To address this problem, this Order contains a provision requiring the Discharger to revise and update its Odor Control Master Plan to include source identification, mitigation, and monitoring.

Other Discharge Characteristics and Permit Conditions

111. *Pretreatment Program:* The Discharger has implemented and is maintaining a U.S. EPA approved pretreatment program in accordance with Federal pretreatment regulations (40 CFR 403) and the requirements specified in Attachment E "Pretreatment Requirements" and its revisions thereafter.

112. *O & M Manual.* An Operations and Maintenance Manual is maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.

113. *NPDES Permit.* This Order serves as a NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code. In addition, adoption of this Order is exempt from CEQA pursuant to California Code of Regulations, Title 11, section 15301, involving negligible or no expansion of use of an existing facility.

114. *Notification.* The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.

115. *Public Hearing.* The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

2. Dry weather discharge from Discharge E-001 where the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

3. Discharge of Wastes 002 and 003 and CSO-009 through CSO-043 outside of the wet weather period as defined in Finding 5.a is prohibited.

4. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited except during a wet weather day.

5. Degradation of harvestable shellfish in the area as a result of Discharge E-001 dry weather discharge is prohibited.

6. The discharge of average dry weather flows greater than 85.4 mgd is prohibited. The Discharger shall determine the average dry weather flow over three consecutive dry weather months each year.

B. EFFLUENT LIMITATIONS

Conventional Pollutants

1. Dry weather discharge from Discharge E-001 (Discharge from Southeast Water Pollution Control Plant's deep water outfall) shall not exceed the following limits:

a.	Constituent	Units	Monthly Average	Weekly Average	Daily Maximum
i	5-day Biochemical Oxygen Demand (BOD_5) mg/L		30	45	
ii	Total Suspended Solids (TSS)	mg/L	30	45	
iii	Oil & Grease	mg/L	10		20
iv	Settleable Matter	ml/L-hr	0.1		0.2

b. pH: The pH of the effluent shall not exceed 9.0 nor be less than 6.0.

When the Discharger conducts continuous pH monitoring, the Discharger shall be in compliance with the pH limitation specified herein, provided that all of the following conditions are satisfied: (i) pH is monitored continuously; (ii) The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (iii) No individual excursion from the range of pH values shall exceed 60 minutes.

c. 85 Percent Removal, BOD_5 and TSS: The arithmetic mean of the 5-day biochemical oxygen demand (BOD_5 20°C) and total suspended solids (TSS) concentrations, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, for influent samples collected at approximately the same times during the same period.

d. Fecal Coliform Bacteria: The treated wastewater, at some point in the treatment process prior to discharge, shall meet the following limits of bacteriological quality:

i. The 30-day moving median value for fecal coliform density in final effluent samples shall not exceed 500 Colony Forming Units (CFU)/100 ml, nor shall more than 10% of the samples in any 30-day period equal or exceed 1100 CFU/100 ml.

e. Total Chlorine Residual: 0.0 mg/L as an instantaneous maximum.

This requirement means that total chlorine residual shall not be greater than the limit of detection in standard test methods as defined in the latest U.S. EPA approved edition of *Standard Methods for the Examination of Water and Wastewater*. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine and sodium bisulfite dosage (including a safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Board staff will conclude that these false positive chlorine residual exceedances are not violations of this permit limit.

2. Discharge E-001(wet weather), and Discharges E-002 through E-006 shall not exceed the following limits:

a. Fecal Coliform Bacteria: The 30-day moving median value for fecal coliform density in final effluent samples shall not exceed 500 CFU/100 ml, nor shall more than 10% of the sample equal or exceed 1100 CFU/100ml.

b. Total Chlorine Residual: 0.0 mg/L as an instantaneous maximum.

This requirement means that total chlorine residual shall not be greater than the limit of detection in standard test methods as defined in the latest U.S. EPA approved edition of *Standard Methods for the Examination of Water and Wastewater*. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine and sodium bisulfite dosage (including a safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Board staff will conclude that these false positive chlorine residual exceedances are not violations of this permit limit.

Toxic Pollutants

3. *Whole Effluent Acute Toxicity:*

a. **Requirements for Southeast Water Pollution Control Plant:** Representative samples of the effluent (Dry Weather Discharge E-001) shall meet the following limits for acute toxicity. Compliance with these limits shall be achieved in accordance with Provision F.8 of this Order.

The survival of bioassay test organisms in 96-hour bioassays of undiluted effluent shall be:
1) an 11-sample median value of not less than 90 percent survival [b(1)] ; and
2) an 11-sample 90th percentile value of not less than 70 percent survival [b(2)] .

These acute toxicity limits are further defined as follows:
1) 11-sample median limit:
Any bioassay test showing survival of 90 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or fewer bioassay tests also show less than 90 percent survival.

2) 90th percentile limit:
Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or fewer bioassay tests also show less than 70 percent survival.
3) If the Discharger demonstrates to the satisfaction of the Executive Officer that toxicity exceeding the levels cited above is caused by ammonia and that the ammonia in the discharge is not adversely impacting receiving water quality or beneficial uses, then such toxicity does not constitute a violation of this effluent limit.

b. **Requirements for North Point Wet Weather Facility and Southeast Water Pollution Control Plant Quint Street Outfall:** Representative samples of the effluent (E-002 and E-003) shall achieve a single sample maximum of not less than 70% survival. Acute toxicity testing shall be conducted on the next subsequent wet weather event if survival falls below 70%.

4. *Chronic Toxicity:*
Representative samples of effluent (Effluent Station Dry Weather E-001) shall meet the following requirements for chronic toxicity. Compliance with the Basin Plan narrative chronic toxicity objective shall be achieved in accordance with Provision F.9 of this Order and shall be demonstrated according to the following tiered requirements based on results from representative samples of the treated final effluent meeting test acceptability criteria:
   i. Routine monitoring;
   ii. Accelerated monitoring after exceeding a three sample median value of 10 chronic toxicity[2] (TUc) or a single sample maximum of 20 TUc or greater. Accelerated monitoring shall consist of monitoring at frequency intervals of one half the interval given for routine monitoring in the SMP of this Order;
   iii. Return to routine monitoring if accelerated monitoring does not exceed either "trigger" in "ii", above;
   iv. Initiate approved toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE) work plan if accelerated monitoring confirms consistent toxicity above either "trigger" in "ii", above;
   v. Return to routine monitoring after appropriate elements of TRE work plan are implemented and either the toxicity drops below "trigger" level in "ii", above or, based on the results of the TRE, the Executive Officer authorizes a return to routine monitoring.

5. *Toxic Substances*: The combined effluent (Dry Weather Discharge E-001 as defined in the attached Self-Monitoring Program) shall not exceed the following limits (1):

[2] A TUc equals 100 divided by the no observable effect level (NOEL). The NOEL is determined from IC, EC, or NOEC values. Monitoring and TRE requirements may be modified by the Executive Officer in response to the degree of toxicity detected in the effluent or in ambient waters related to the discharge. Failure to conduct the required toxicity tests or a TRE within a designated period shall result in the establishment of effluent limitations for chronic toxicity.

Constituent	Daily Max	Monthly Average	Interim Daily Maximum	Interim Monthly Average	Units	Notes
Copper			37		µg/L	(1), (2)
Mercury				0.087	µg/L	(1), (3), (4)
Lead	89	36			µg/L	(1)
Nickel	59	34			µg/L	(1)
Silver	22	12			µg/L	(1)
Zinc	720	490			µg/L	(1)
Dieldrin	0.00028	0.00014			µg/L	(1), (5)
4,4-DDE	0.0012	0.00059			µg/L	(1), (5)

Footnotes :

(1) (a) Compliance with these limits is intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.

(b) All analyses shall be performed using current U.S. EPA methods, or equivalent methods approved in writing by the Executive Officer. The Discharger is in violation of the limit if the discharge concentration exceeds the effluent limitation and the reported minimum level (ML) for the analysis (see note 9 for TCDD Equivalent).

(c) Limits apply to the average concentration of all samples collected during the averaging period (Daily = 24-hour period; Monthly = calendar month).

(2) This interim limit shall remain in effect until June 30, 2007, or until the Board amends the limit based on site-specific objectives or the Waste Load Allocation in the TMDL. However, during the next permit reissuance, Board staff may re-evaluate the interim limits.

(3) Mercury: Effluent mercury monitoring shall be performed by using ultra-clean sampling and analysis techniques, with a minimum level of 0.002 µg/L or lower.

(4) This interim limit shall remain in effect until March 31, 2010, or until the Board amends the limit based on site-specific objectives or the Waste Load Allocation in the TMDL. However, during the next permit reissuance, Board staff may re-evaluate the interim limits.

(5) As outlined in Section 2.4.5 of the SIP, compliance with these final limits is determined by comparing the effluent data with the corresponding Minimum Levels in Appendix 4 of the SIP: 0.01 µg/L for dieldrin; and 0.05 µg/L for 4,4-DDE; A daily maximum or monthly average valued for a given constituent shall be considered non-compliant with the effluent limits only if it exceeds the effluent limitation and the reported ML for that constituent.

6. **Interim Mass Emission Limits – Mercury**
Until TMDL and Waste Load Allocation (WLA) efforts for mercury provide enough information to establish a different WQBEL, the Discharger shall demonstrate that the total mercury mass loading from discharges to lower San Francisco Bay at the deepwater outfall (Effluent Station Dry Weather E-001) has not increased by complying with the following:

a. Interim mass emission limit: **The mass emission limit for mercury is 0.30 kilograms per month (kg/month).** The total mercury mass load shall not exceed this limit.

b. Compliance with this limit shall be evaluated using monthly moving averages of total mass load, computed as described below:

12-Month Monthly Moving Average of Total Mass Load = Average of the monthly total mass loads from the past 12 months

Monthly Total Mass Load (kg/month) = Average daily flow in a calendar month in mgd outfall (Dry Weather Waste E-001) x monthly effluent concentration measurements in µg/L corresponding to the above flows for samples taken from dry weather E-001 x 0.1151. (If more than one concentration measurement is obtained in a calendar month, the average of these measurements is used as the monthly concentration value for that month. If test results are less than the reported ML, the concentration value shall be assumed to be equal to the reported ML.)

c. The Discharger shall submit a cumulative total of mass loadings for the previous twelve months with each monthly Self-Monitoring Report. Compliance with each monthly mass limit will be determined based on the 12-month moving averages over the previous twelve months of monitoring. The Discharger may use monitoring data collected under accelerated schedules (i.e., special studies) to determine compliance.

d. The mercury TMDL and WLAs will supersede this mass emission limitation upon their completion. The Clean Water Act's antibacksliding rule, Section 402(o), indicates that this Order may be modified to include a less stringent requirement following completion of the TMDL and WLA, if the requirements for an exception to the rule are met.

C. WET WEATHER EFFLUENT PERFORMANCE CRITERIA

The Federal Combined Sewer Overflow Control Policy (59 FR 18688) regulates the operation of combined sewer systems. The Board, in Order No. 79-67, determined that the combined sewer system, designed to capture 100% of the combined sewage and storm water runoff, to attain a long term average overflow frequency specified in that order, and to maximize treatment through appropriately sized facilities, would protect beneficial uses. The Discharger has successfully and adequately designed, built, and implemented control and treatment strategies that effectively address wet weather flow conditions. The treatment and discharge process descriptions of the Discharger are referenced in the Findings of this document.

The Discharger is required to comply with the Nine Minimum Controls required in the CSO Control Policy. The Nine Minimum Controls constitute the technology based minimum controls applicable to combined sewer flows. In accordance with the Policy's Nine Minimum Controls and its Long Term Control Plan, the Discharger must maximize pollutant removal. Adherance to the following criteria will constitute compliance with CSO Policy requirements for technology based and water quality based effluent limitations, and discharge permit requirements. The Discharger shall provide documentation that addresses the following criteria for wet weather flows as part of the Monthly Self Monitoring Report requirements.

1. The Operations Plan must be filed by June 30, 2003, and approved by the Executive Officer, and then as modified during the life of the permit. Operations parameters, equipment maintenance schedules, and replacement parts for the system shall be set forth in the Operations Plan.

2. Wet Weather Operation of Bayside Facilities

a. NORTH DRAINAGE BASIN: North Point Wet Weather Facility (NPF) operation depends on rainfall, forecasts and storage conditions in the North Drainage Basin and the Central Drainage Basin. Activation of the NPF is the pumping of flow from the North Shore Pump Station into the NPF for storage or treatment.

   i. The NPF will be activated when the level of sewage and stormwater in the North Shore Storage/Transport Box is at 200 inches.
   ii. The NPF will be activated treating 135-145 mgd of combined in-flow within 60 minutes of a discharge through CSN 013 to CSN 017.
   iii. The NPF will remain operational until the Central Drainage Basin (Channel) storage/transport levels are low enough that flow from the North Shore Pump Station to the Channel Pump Station will not increase the likelihood of storage transport discharges in the Central or Southeast Drainage Basins.

b. CENTRAL DRAINAGE BASIN: Channel Pump Station (CHS) operation depends on rainfall, forecasts and storage conditions in the Central Drainage Basin and the Southeast Drainage Basin
   i. CHS will be pumping 80 mgd to the Southeast Water Pollution Control Plant (SEP) or SEP influent will be at 250 mgd (from CHS and Flynn Pump Stations [FPS] and SEP Lift Station) before there are any storage/transport discharges to Mission Creek (CSC 022 to CSC 027).
   ii. Flow from CHS to SEP may be reduced to prevent discharge from the Southeast Drainage Basin storage/transport structures if the flow levels between the Central Drainage Basin structures and the Southeast Drainage Basin structures (Griffith Pump Station and/or FPS become unbalanced, e.g., Griffith and/or Flynn storage levels continue to rise while SEP is at a maximum flow.

c. Mariposa Pump Station
   i. The Mariposa Pump Station (two wet weather pumps) will be operated at full capacity prior to discharge through CSC 029.

d. 20th Street Pump Station
   i. The 20th St. Pump Station (two wet weather pumps) will be operated at full capacity prior to discharge through CSC 030 or CSC 030A.

e. SOUTH DRAINAGE BASIN: Southeast Water Pollution Control Plant operation depends on rainfall, forecasts and storage conditions in the Central Drainage Basin and the Southeast Drainage Basin.
   i. The Southeast Water Pollution Control Plant will have an influent flow rate of 240-250 mgd prior to discharge into Islais Creek from CSS 031 to CSS 035.

f. Griffith Pump Station
   i. The Griffith Pump Station (four wet weather pumps) will be operated at full capacity prior to discharge through CSS 040 to CSS 042.

g. Sunnydale Pump Station
   i. The Sunnydale Pump Station (3 wet weather pumps) will be operated at full capacity prior to discharge through CSS 043.

3. Post Rain Activities

a. Post Wet Weather Event – Treatment at the Southeast Water Pollution Control Plant and North Point Wet Weather Facility will continue until North, Central and Southeast Drainage Basin storage/transports are substantially empty of stormwater flows.
   i. If the National Weather Service predicts rain during the next 24 Hours

      a) Pumping will occur until the level of sewage/stormwater in the Channel Pump Station Box is between 100-150 inches,
      b) Pumping will occur until the level of sewage/stormwater in the North Shore Box is at 100 inches, and
      c) Pumping will occur until the Islais Creek storage level is essentially zero.

   ii. If the National Weather Service does not predict rain
      a) Pumping will occur until the level of sewage/stormwater in the Channel Pump Station Box is below 150 inches,
      b) Pumping will occur until the level of sewage/stormwater in the North Shore Box is below 150 inches, and
      c) Pumping will occur until the Islais Creek storage level is essentially zero.

D. RECEIVING WATER LIMITATIONS

1. The discharge of dry weather waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of dry weather waste shall not cause the following limits to be exceeded in waters of the State at any one place within one foot of the water surface:

   a. Dissolved Oxygen: 5.0 mg/L, minimum

      The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

   b. Dissolved Sulfide: 0.1 mg/L, maximum

c. pH: Variation from normal ambient pH by more than 0.5 pH units.

d. Un-ionized Ammonia: 0.025 mg/L as N, annual median (except Islais Creek); and
0.16 mg/L as N, maximum.
0.40 mg/l as N, maximum for Islais Creek

e. Nutrients: Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. The discharge of waste shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted hereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

E. SLUDGE MANAGEMENT PRACTICES

1. The Discharger presently disposes of all stabilized, dewatered bio-solids (sewage sludge) from the Discharger's wastewater treatment plant by beneficially re-using as alternative daily cover at a permitted landfill or by land application at a permitted site. If the Discharger desires to dispose of sludge by a different method, the Discharger shall notify the Board and U.S. EPA in writing before start-up of the alternative disposal practice.

2. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. The Discharger's annual self-monitoring report shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

3. All sludge generated by the Discharger must be disposed of in a municipal solid waste landfill, or in accordance with the requirements of 40 CFR 503. All the requirements of 40 CFR Part 503 are enforceable whether or not they are stated in an NPDES permit or other permit issued to the Discharger.

4. Sludge treatment, storage, and disposal or reuse shall not create a nuisance or result in groundwater contamination.

5. The treatment and temporary storage of sewage sludge at the Discharger's wastewater treatment facility shall not cause waste material to be in a position where it will be carried from the sludge treatment and storage site and deposited in the waters of the State.

6. This permit does not authorize permanent on-site storage or disposal of sewage sludge at the Discharger's wastewater treatment facility. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the Discharger.

7. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

F. PROVISIONS

1. **Permit Compliance and Rescission of Previous Waste Discharge Requirements**

The Discharger shall comply with all sections of this Order beginning on July 1, 2002. Requirements prescribed by this Order supersede the requirements prescribed by Order Nos. 94-149, 95-039, and 96-116. Order Nos. 94-149, 95-039, and 96-116 are hereby rescinded upon the effective date of this Order.

Special Studies

2. **Effluent Characterization for Selected Constituents**

   The Discharger shall monitor and evaluate effluent discharged to central San Francisco Bay for the constituents listed in Enclosure A of the Board's August 6, 2001 Letter (Attachment H). Compliance with this requirement shall be achieved in accordance with the specifications stated in the Board's August 6, 2001 Letter under Effluent Monitoring for major Dischargers. The Discharger submitted a sampling plan in response to this letter, and the Executive Officer conditionally approved the plan in November 2001. Interim and final reports shall be submitted to the Board in accordance with the schedule specified below (same schedule is also specified in August 6, 2001 Letter):

   Interim and Final Reports: An interim report is due on May 18, 2003. The report should summarize the data collected to date, and describe future monitoring to take place. A final report that presents all the data shall be submitted to the Board 180 days prior to the permit expiration date. This final report shall be submitted with the application for permit reissuance.

3. **Ambient Background Receiving Water Study**

   The Discharger shall collect or participate in collecting background ambient receiving water data with other Dischargers and/or through the RMP. This information is required to perform RPAs and to calculate effluent limitations. To fulfill this requirement, the Discharger shall submit data sufficient to characterize the concentration of each toxic pollutant listed in the CTR in the ambient receiving water. The data on the conventional water quality parameters (pH, salinity, and hardness) shall also be sufficient to characterize these parameters in the ambient receiving water at a point after the discharge has mixed with the receiving waters.

   The Bay Area Clean Water Agencies, on behalf of the Discharger, submitted a sampling plan dated September 28, 2001, for a collaborative group monitoring program. The Executive Officer conditionally approved this plan in November 2001.

   Interim and Final Reports: The Discharger shall submit an interim report on May 18, 2003. The report shall summarize the data collected to date, and describe future monitoring to take place. The Discharger shall submit a final report that presents all the data to the Board 180 days prior to permit expiration. This final report shall be submitted with the application for permit reissuance.

4. **Wet Weather Facilities System Study**

   Within three years of the effective date of this permit, the Discharger shall fund the preparation of a Wet Weather Facilities system study by a mutually agreed upon third party. The objective of the study is to determine if the Discharger, has and is, maintaining and operating the wet weather facilities in compliance with the requirements set forth in this permit (e.g., minimize overflows and maximize treatment), and the Discharger's approved operations and maintenance plans. The study will be based on a mutually agreed upon scope of work, which will be provided for Board staff review and Executive Officer approval by the Discharger within one year of the effective date of this permit. This scope of work shall include a task to compile records on the maintenance and operation of the wet weather facilities.

5. **Dioxin Special Study:** The Discharger shall investigate lowering the detection limit for dioxin TEQ congeners. The special study shall also include monitoring which would allow the Board to calculate an interim limit for dioxin TEQ.

Task	Due Date
Submit study Work Plan acceptable to the Executive Officer	September 1, 2002
Implement Approve Work Plan	20 days after study plan approval
Submit Final Report	December 1, 2003

6. **Tributyltin Special Study:** The Discharger shall conduct additional tributyltin monitoring, which would allow the Board to calculate an interim limit for tributyltin.

Task	Due Date
Submit study Work Plan acceptable to the Executive Officer	September 1, 2002
Implement Approve Work Plan	20 days after study plan approval
Submit Final Report	May 31, 2003

7. **Bis(2-ethylhexyl)phthalate Special Study:** The Discharger shall investigate and improve sampling and analysis procedures for bis(2-ethylhexyl)phthalate to avoid laboratory contamination. The special study shall include monitoring requirement which would allow the Board to calculate an interim limit for bis(2-ethylhexyl)phthalate.

Task	Due Date
Submit study Work Plan acceptable to the Executive Officer	September 1, 2002
Implement Approve Work Plan	20 days after study plan approval
Submit Final Report	May 31, 2003

8. **Odor Control Master Plan:** To alleviate and minimize odor created by sewage treatment and disposal, the Discharger shall update and revise its Odor Control Master Plan to investigate methods to control odor.

Task	Due Date
Submit an Odor Control Work Plan The Plan shall include but not be limited to an odor source investigation, source mitigation study that fully addresses measures to abate odor complaints and that evaluates the feasibility of implementing those measures, odor monitoring, and implementation schedule.	September 1, 2002
Implement Work Plan	As specified in the Work Plan

9. **Pollution Prevention Program and Pollutant Minimization Program**
   a. The Discharger shall continue to improve its existing Pollution Prevention Program in order to reduce pollutant loadings to the treatment plant and therefore to the receiving waters.

b. The Discharger shall submit an annual report, acceptable to the Executive Officer, no later than August 30th of each calendar year. Annual reports shall cover July through June of the preceding year.

Annual report shall include at least the following information:

(i) *A brief description of its treatment plant, treatment plant processes and service area*.

(ii) *A discussion of the current pollutants of concern.* Periodically, the Discharger shall analyze its own situation to determine which pollutants are currently a problem and/or which pollutants may be potential future problems. This discussion shall include the reasons why the pollutants were chosen.

(iii) *Identification of sources for the pollutants of concern*. This discussion shall include how the Discharger intends to estimate and identify sources of the pollutants. The Discharger should also identify sources or potential sources not directly within the ability or authority of the Discharger to control such as pollutants in the potable water supply and air deposition.

(iv) *Identification of tasks to reduce the sources of the pollutants of concern.* This discussion shall identify and prioritize tasks to address the Discharger's pollutants of concern. Tasks can target its industrial, commercial, or residential sectors. The Discharger may develop tasks themselves or participate in group, regional, or national tasks that will address its pollutants of concern. The Discharger is strongly encouraged to participate in group, regional, or national tasks that will address its pollutants of concern whenever it is efficient and appropriate to do so. A time line shall be included for the implementation of each task.

(v) *Continuation of outreach tasks for City employees.* The Discharger shall continue outreach tasks for City and/or District employees. The overall goal of this task is to inform employees about the pollutants of concerns, potential sources, and how they might be able to help reduce the discharge of pollutants of concerns into the treatment plant. The Discharger may provide a forum for employees to provide input to the Program.

(vi) *Continuation of a public outreach program*. The Discharger shall continue to develop a public outreach program to communicate pollution prevention to its service area. Outreach may include participation in existing community events such as county fairs, initiating new community events such as displays and contests during Pollution Prevention Week, implementation of a school outreach program, conducting plant tours, and providing public information in newspaper articles or advertisements, radio, television stories or spots, newsletters, utility bill inserts, and web site. Information shall be specific to the target audiences. The Discharger should coordinate with other agencies as appropriate.

(vii) *Discussion of criteria used to measure the Program's and tasks' effectiveness*. The Discharger shall establish criteria to evaluate the effectiveness of its Pollution Prevention Program. This shall also include a discussion of the specific criteria used to measure the effectiveness of each of the tasks in item b. (iv), b. (v), and b. (vi).

(viii) *Documentation of efforts and progress.* This discussion shall detail all of the Discharger's activities in the Pollution Prevention Program during the reporting year.

(ix) *Evaluation of Program's and tasks' effectiveness.* This Discharger shall utilize the criteria established in b. (vii) to evaluate the Program's and tasks' effectiveness.

(x) *Identification of specific tasks and time schedules for future efforts.* Based on the evaluation, the Discharger shall detail how it intends to continue or change its tasks in order to more effectively reduce the amount of pollutants to the treatment plant, and subsequently in its effluent.

c. According to Section 2.4.5 of the SIP, when there is evidence that a priority pollutant is present in the effluent above an effluent limitation and either:
   (i) A sample result is reported as detected, but not quantified (less than the Minimum Level) and the effluent limitation is less than the reported Minimum Level; or
   (ii) A sample result is reported as not detected (less than the Method Detection Limit) and the effluent limitation is less than the Method Detection Limit, then the Discharger shall expand its existing Pollution Prevention Program to include the reportable priority pollutant. A priority pollutant becomes a reportable priority pollutant when (1) there is evidence that it is present in the effluent above an effluent limitation and either (c)(i) or (c) (ii) is triggered or (2) if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level.

d. If triggered by the reasons in Provision F.9.c above and notified by the Executive Officer, the Discharger's Pollution Prevention Program shall, within 6 months, also include:
   (i) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling, or alternative measures approved by the Executive Officer when it is demonstrated that source monitoring is unlikely to produce useful analytical data;
   (ii) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system, or alternative measures approved by the Executive Officer when it is demonstrated that influent monitoring is unlikely to produce useful analytical data;
   (iii) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
   (iv) Development of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
   (v) An annual status report that shall be sent to the RWQCB including:
      1. All Pollution Prevention monitoring results for the previous year;
      2. A list of potential sources of the reportable priority pollutant(s);
      3. A summary of all actions undertaken pursuant to the control strategy; and
      4. A description of actions to be taken in the following year.

e. To the extent where the requirements of the Pollution Prevention Program and the Pollutant Minimization Program overlap, the Discharger is allowed to continue/modify/expand its existing Pollution Prevention Program to satisfy the Pollutant Minimization Program requirements.

f. These Pollution Prevention/Pollutant Minimization Program requirements are not intended to fulfill the requirements in The Clean Water Enforcement and Pollution Prevention Act of 1999 (Senate Bill 709).

CSO Requirements

10. **Nine Minimum Controls: The discharger shall implement and comply with the following technology-based requirements for the Bayside Wet Weather Facilities and Diversion Structures:**

    a. **Conduct Proper Operations and Regular Maintenance Programs**. The Discharger shall implement the Operations and Maintenance Plan for the combined sewer system that will

include the elements listed below. The Discharger shall also update the plan to incorporate any changes to the system and shall operate and maintain the system according to the plan. The Discharger shall keep records to document the implementation of the plan

i. **Designation of a Manager for Combined Sewer Overflows.** The Discharger shall designate a person to be responsible for the wastewater collection system and serve as the contact person regarding combined sewer overflows. The Discharger shall notify the Executive Officer of the Board within 90 days of designation of a new contact person.

ii. **Inspection and maintenance of CSS.** The Discharger shall:
- Inspect and maintain all overflow structures, regulators, pumping stations, and tide gates to ensure that they are in good working condition and adjusted to minimize overflows and prevent tidal inflow.
- Inspect each overflow outfall at least once per year. The inspection shall include, but is not limited to, entering the regulator structure if accessible, determining the extent of debris and grit build-up, and removing any debris that may constrict flow, cause blockage, and result in a dry weather overflow. For overflow outfalls that are inaccessible, the Discharger may perform a visual check of the overflow pipe to determine whether or not the overflow occurred or could potentially occur during dry weather flow conditions.
- Record in a maintenance log the results of the inspections.

iii. **Provision for Trained Staff.** The Discharger shall provide an adequate number of full-time equivalents to carry out the operation, maintenance, repair and testing functions required to ensure compliance with the terms and conditions of this permit. Each member of the staff shall receive appropriate training.

iv. **Allocation of Funds for Operation and Maintenance.** The Discharger shall allocate adequate funds specifically for operation and maintenance activities. The Discharger shall submit a certification of assurance that the necessary funds, equipment, and personnel have been or will be committed to carry out the Operations and Management (O&M) Plan.

b. **Maximize Use of the Collection System for Storage.** The Discharger shall continue to maximize the inline storage capacity. (Note: This provision refers to using the sewers for storage to the maximum extent possible. It does not refer to the storage/transports.)

c. **Review and Modify Pretreatment Program.** The Discharger shall continue to implement selected controls to minimize the impact of non-domestic discharges. The Discharger shall re-evaluate every 3 years whether additional modifications to its pretreatment program are feasible or of practical value. The Discharger shall keep records to document this evaluation and to document implementation of the selected controls to minimize non-domestic discharges.

d. **Maximize Flow to Southeast Water Pollution Control Plant and North Point Wet Weather Facility.** The Discharger shall operate the Southeast Water Pollution Control Plant at a maximum treatable flow during wet weather flow conditions. The Discharger shall report rainfall and flow data to the Board as part of the Self-Monitoring Report.

The Discharger has prepared a facilities operation plan. This operation plan was developed to achieve the following objectives:

i. Maximize the volume of wastewater treated (at either the Southeast Water Pollution Control Plant or North Point Wet Weather Facility and discharged via deep water

outfalls, consistent with the hydraulic capacities of the Discharger's storage, transport, treatment, and disposal facilities, and

ii. Assure that all discharges from the diversion structures are first baffled to reduce floatable volume.

e. **Prohibit Combined Sewer Overflows During Dry Weather.** Dry weather overflows from outfalls E-002 through E-006 and CSO structures CSO 009 through-043 are prohibited. All dry weather overflows must be reported to the Board within 24 hours of when the Discharger becomes aware of a dry weather overflow. When the Discharger detects a dry weather overflow, the Discharger shall begin corrective actions immediately.

The Discharger shall inspect the dry weather overflow point each subsequent day of the overflow until the overflow has been eliminated. The Discharger shall record in the inspection log each dry weather overflow event, as well as the cause, corrective measures taken, and the dates of the beginning and cessation of the overflow.

f. **Control Solid and Floatable Materials in CSOs.** The Discharger shall continue to implement measures to control solid and floatable materials in its overflows. These measures shall include:

i. Ensure that all overflows from the diversion structures are baffled or that other means are used to reduce the volume of floatable materials.

ii. Remove solid or floatable materials captured in the storage/transport in an acceptable manner prior to discharge to the receiving water.

g. **Develop and Implement Pollution Prevention Program.** The Discharger shall continue to implement a pollution prevention program focused on reducing the impact of treated and untreated overflows on receiving waters. This pollution prevention program is authorized by the Basin Plan and Federal Regulations on CSOs. The Discharger shall keep records to document pollution prevention implementation activities. This program shall be developed and implemented in accordance with Provision 8.Conducting street sweeping and catch basin modification or cleaning at a frequency that will prevent large accumulations of pollutants and debris.

h. **Notify the Public of Overflows.** The Discharger shall continue to implement a public notification plan to inform citizens of when and where overflows occur. The process must include:

i. A mechanism to alert persons using all receiving bodies of water affected by overflows.

ii. A system to determine the nature and duration of conditions that are potentially harmful to users of these receiving water bodies due to overflows.

Specifically, warning signs shall be posted at beach locations where water contact recreation is enjoyed by the public whenever there is a discharge from the diversion structures. Such warning signs shall be posted on the same days as the overflow unless the overflow occurs after 4:00 p.m., in which case the signs shall be posted by 8:00 a.m. the next day. The Discharger shall keep records documenting public notification.

The City's current notification process fulfills these requirements. The process includes permanent information signs at all beach locations around the perimeter of San Francisco. These signs inform the public in English, Spanish and Chinese that signs will be posted when it is unsafe to enter the water, and warns users that bacteria concentrations may be elevated during periods of heavy rainfall. NO SWIMMING signs are posted at beach

locations whenever an overflow occurs in the vicinity. These signs remain posted until water sampling indicates the bacteria concentration has dropped below the level of concern for water contact recreation. Both signs reference the City's toll free water quality hotline (1-877-SF BEACH) which is updated weekly or whenever beach conditions change. San Francisco also provides color coded descriptions of beach water quality conditions (green/open; yellow/caution; red/posted) on the web at http://www.sfpuc.com or http://www.earth911.org.

iii. The Discharger shall undertake a Recreational Use Study of the bayside beaches and water use areas (Candlestick Point Recreation Area, Aquatic Park Beach, Crissy Field Beach, Islais Creek and Mission Bay) in order to determine the number of users impacted from CSO events. The study will assess the current levels of recreational use of the shoreline and nearshore waters identifying types and frequency of use.

	Task	Compliance Date
(1)	Recreational Use Study Plan The Discharger shall develop and submit a study plan acceptable to the Executive Officer. The study shall at minimum encompass two full wet weather seasons in order to get adequate information relating to CSO events and use data. This special study will replace any standard observation requirements associated with shoreline bacteria monitoring.	January 15, 2003
(2)	Study Commencement	1st wet weather period after study approval
(3)	Final Report The Discharger shall submit a final report, acceptable to the Executive Officer, documenting the result of the Recreational Use Study.	1 year prior to permit expiration

i. **Monitor to Effectively Characterize Overflow Impacts and the Efficacy of CSO Controls.** The Discharger shall regularly monitor overflow outfalls to effectively characterize overflow impacts and efficacy of CSO controls.

	Task	Compliance Date
(1)	Study Plan The Discharger shall develop and submit a study plan acceptable to the Executive Officer. The study shall at minimum encompass two full wet weather seasons in order to get adequate information relating CSO events and use data. This special study will replace any routine overflow monitoring requirements.	January 15, 2003
(2)	Study Commencement	1st wet weather period after study approval
(3)	Final Report The Discharger shall submit a final report, acceptable to the Executive Officer, documenting the result of the Overflow Impacts and the CSO Control Efficacy Study.	1 year prior to permit expiration

Toxicity Requirements

11. **Acute Toxicity**

Compliance with acute toxicity requirements of this Order shall be achieved in accordance with the following:

a. From permit adoption date to **June 30, 2003**:
   (1) Compliance with the acute toxicity effluent limits of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour continuous flow-through bioassays.
   (2) Test organisms shall be three-spined sticklebacks unless specified otherwise in writing by the Executive Officer.
   (3) All bioassays shall be performed according to the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms," 3rd Edition, with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

b. From **July 1, 2003** on:
   (1) Compliance with the acute toxicity effluent limits of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour continuous flow-through bioassays, or static renewal bioassays. If the Discharger will use static renewal tests, or continue to use 3rd Edition Methods, they must submit a technical report by March 1, 2003, identifying the reasons why flow-through bioassay is not feasible using approved EPA protocol specified in 40CFR 136 (currently 4th edition).
   (2) Test organisms shall be fathead minnows or rainbow trout unless specified otherwise in writing by the Executive Officer.
   (3) All bioassays shall be performed according to the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms" as specified in 40CFR 136. Exceptions may be granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

12. **Whole Effluent Chronic Toxicity Requirements**

The Discharger shall monitor and evaluate effluent discharged from dry weather E-001 to lower San Francisco Bay for chronic toxicity in order to demonstrate compliance with the Basin Plan narrative toxicity objective. Compliance with this requirement shall be achieved in accordance with the following.

a. The Discharger shall conduct routine chronic toxicity monitoring in accordance with the SMP of this Order.
b. If data from routine monitoring exceed either of the following evaluation parameters, then the Discharger shall conduct accelerated chronic toxicity monitoring. Accelerated monitoring shall consist of monitoring at frequency intervals of one half the interval given for routine monitoring in the SMP of this Order.
c. Chronic toxicity evaluation parameters:
   (1) a three sample median value of 10 TU_c [(3)]; and
   (2) a single sample maximum value of 20 TU_c [(3)].
   (3) These parameters are defined as follows:
      (a) Three-sample median: A test sample showing chronic toxicity greater than 10 TU_c represents an exceedance of this parameter, if one of the past two or fewer tests also show chronic toxicity greater than 10 TU_c.
      (b) TU_c (chronic toxicity unit): A TU_c equals 100/NOEL (e.g., If NOEL = 100, then toxicity = 1 TUc). NOEL is the no observed effect level determined from IC, EC, or NOEC values [(c)].
      (c) The terms IC, EC, NOEL and NOEC and their use are defined in Attachment C of this Order.

d. If data from accelerated monitoring tests are found to be in compliance with the evaluation parameters, then routine monitoring shall be resumed.
e. If accelerated monitoring tests continue to exceed either evaluation parameter, then the Discharger shall initiate a chronic toxicity reduction evaluation (TRE).
f. The TRE shall be conducted in accordance with the following:
   (1) The Discharger shall prepare and submit to the Board for Executive Officer approval a TRE work plan. An initial generic workplan shall be submitted within 120 days of the date of adoption of this Order. The workplan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities.
   (2) The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test observed to exceed either evaluation parameter.
   (3) The TRE shall be conducted in accordance with an approved work plan.
   (4) The TRE needs to be specific to the discharge and Discharger facility, and be in accordance with current technical guidance and reference materials including U.S. EPA guidance materials. TRE shall be conducted as a tiered evaluation process, such as summarized below:
      (a) Tier 1 consists of basic data collection (routine and accelerated monitoring).
      (b) Tier 2 consists of evaluation of optimization of the treatment process including operation practices, and in-plant process chemicals.
      (c) Tier 3 consists of a toxicity identification evaluation (TIE).
      (d) Tier 4 consists of evaluation of options for additional effluent treatment processes.
      (e) Tier 5 consists of evaluation of options for modifications of in-plant treatment processes.
      (f) Tier 6 consists of implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.
   (5) The TRE may be ended at any stage if monitoring finds there is no longer consistent toxicity.
   (6) The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity. All reasonable efforts using currently available TIE methodologies shall be employed.
   (7) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with chronic toxicity evaluation parameters.
   (8) Many recommended TRE elements parallel required or recommended efforts of source control, pollution prevention and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements or recommended efforts of such programs may be acceptable to comply with TRE requirements.
   (9) The Board recognizes that chronic toxicity may be episodic and identification of causes of and reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.
g. Chronic Toxicity Monitoring Screening Phase Requirements, Critical Life Stage Toxicity Tests and definitions of terms used in the chronic toxicity monitoring are identified in Attachment A of the SMP. The Discharger shall comply with the chronic toxicity screening requirements specified in this attachment as applicable to the discharge.

Ongoing Programs

13. **Regional Monitoring Program**

The Discharger shall continue to participate in the Regional Monitoring Program (RMP) for trace substances in San Francisco Bay in lieu of more extensive effluent and receiving water self-monitoring requirements that may be imposed.

14. **Pretreatment Program**

Pretreatment Program: The Discharger shall implement and enforce its approved pretreatment program in accordance with Federal Pretreatment Regulations (40 CFR 403), pretreatment standards promulgated under Section 307(b), 307(c), and 307(d) of the Clean Water Act, and the requirements in **Attachment F**, "Pretreatment Requirements." The Discharger's responsibilities include, but are not limited to:

a. Enforcement of National Pretreatment Standards in accordance with 40 CFR 403.5 and 403.6;

b. Implementation of its pretreatment program in accordance with legal authorities, policies, procedures and financial provisions described in the General Pretreatment regulations (40 CFR 403) and the Discharger's approved pretreatment program;

c. Submission of reports to, the State Board and the Board, as described in **Attachment F,** "Pretreatment Requirements;"

The Discharger shall implement its approved pretreatment program and the program shall be an enforceable condition of this permit. If the Discharger fails to perform the pretreatment functions, the Regional Water Quality Control Board (RWQCB), the State Waters Resources Control Board (SWRCB), or the United States Environmental Protection Agency (U.S. EPA) may take enforcement actions against the Discharger as authorized by the Clean Water Act.

Optional Studies

15. **Optional Mass Offset**

The Discharger may submit to the Board for approval a mass offset plan to reduce 303(d) listed pollutants to the same watershed or drainage basin. The Board may modify this Order to allow an approved mass offset program.

16. **Copper Translator Study and Schedule**

In order to develop information that may be used to establish a water quality based effluent limit based on dissolved copper criteria, the Discharger may utilize RMP data from stations nearest the Discharger's outfall. Copper translator will be calculated as part of the technical work being conducted for the central San Francisco copper/nickel TMDL/SSO project. Optionally, the Discharger may implement a sampling plan to collect data for development of a dissolved to total copper translator. If the Discharger chooses to proceed with the study, which may be conducted in cooperation with other Dischargers, the work shall be performed in accordance with the following tasks:

Task

a. Copper Translator Study Plan.

The Discharger shall submit a study plan, acceptable to the Executive Officer, for collection of data that can be used for establishment of a dissolved to total copper translator, as discussed in the Findings.

b. After Executive Officer approval, the Discharger shall begin implementation of the study plan. The study plan shall provide for development of translators in accordance with the State Board's SIP, EPA guidelines, California Department of Fish and Game approval, and any relevant portions of the Basin Plan, as amended.

c. Copper Translator Final Report
The Discharger shall conduct the translator study by using field sampling data approximate to the discharge point and in the vicinity of the discharge point, or as otherwise provided for in the approved work plan, and shall submit a report, acceptable to the Executive Officer, no later than November 30, 2003, documenting the results of the copper translator study. The study may be conducted in coordination with other Dischargers and may also include any other site specific information that the Discharger would like the Board to consider in development of a water quality based effluent limitation for copper.

Facilities Status Reports and Permit Administration

17. **Wastewater Facilities, Review and Evaluation, and Status Reports**
    a. The Discharger shall operate and maintain its wastewater collection, treatment and disposal facilities in a manner to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transportation, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.
    b. The Discharger shall regularly review and evaluate its wastewater facilities and operation practices in accordance with section a. above. Reviews and evaluations shall be conducted as an ongoing component of the Discharger's administration of its wastewater facilities.
    c. Annually, the Discharger shall submit to the Board a report describing the current status of its wastewater facility review and evaluation, including any recommended or planned actions and an estimated time schedule for these actions. This report shall include a description or summary of review and evaluation procedures, and applicable wastewater facility programs or capital improvement projects. This report shall be submitted in accordance with the Annual Status Report Provision below.

18. **Operations and Maintenance Manual, Review and Status Reports**
    a. The Discharger shall maintain an Operations and Maintenance Manual (O & M Manual) as described in the findings of this Order for the Discharger's wastewater facilities. The O & M Manual shall be maintained in useable condition, and available for reference and use by all applicable personnel.
    b. The Discharger shall regularly review, and revise or update as necessary, the O & M Manual(s) in order for the document(s) to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary. For any significant changes in treatment facility equipment or operation practices, applicable revisions shall be completed within 90 days of completion of such changes.
    c. Annually, the Discharger shall submit to the Board a report describing the current status of its O & M Manual review and updating. This report shall include an estimated time schedule for completion of any revisions determined necessary, a description of any completed revisions, or a statement that no revisions are needed. This report shall be submitted in accordance with the Annual Status Report Provision below.

19. **Contingency Plan, Review and Status Reports**
    a. The Discharger shall maintain a Contingency Plan as required by Board Resolution 74-10 (Attachment G), and as prudent in accordance with current municipal facility emergency planning. The discharge of pollutants in violation of this Order where the Discharger has failed to

develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

b. The Discharger shall regularly review, and update as necessary, the Contingency Plan in order for the plan to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and updates shall be completed as necessary.

c. Annually, the Discharger shall submit to the Board a report describing the current status of its Contingency Plan review and update. This report shall include a description or copy of any completed revisions, or a statement that no changes are needed. This report shall be submitted in accordance with the Annual Status Report Provision below.

20. **Annual Status Reports**
The reports identified above in Provisions **F.17.c, F.18.c, and F.19.c** shall be submitted to the Board annually, by July 15 th of each year. Modification of report submittal dates may be authorized, in writing, by the Executive Officer.

21. **303(d)-listed Pollutants Site-Specific Objective and TMDL Status Review**
The Discharger shall participate in the development of a TMDL or site-specific objective for copper, mercury, 4,4-DDE, and dieldrin. By January 31 of each year, the Discharger shall submit an update to the Board to document efforts made on participation in development of TMDL or site-specific objective. Board staff shall review the status of TMDL development. This Order may be reopened in the future to reflect any changes required by the TMDL development.

22. **New Water Quality Objectives**
As new or revised water quality objectives come into effect for the Bay and contiguous water bodies (whether statewide, regional or site-specific), effluent limitations in this Order will be modified as necessary to reflect updated water quality objectives. Adoption of effluent limitations contained in this Order are not intended to restrict in any way future modifications based on legally adopted water quality objectives.

23. **Self-Monitoring Program**
The Discharger shall comply with the Self-Monitoring Program (SMP) for this Order as adopted by the Board. The SMP may be amended by the Executive Officer pursuant to U.S. EPA regulations 40CFR 122.62, 122.63 and 124.5.

24. **Standard Provisions and Reporting Requirements**
The Discharger shall comply with all applicable items of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* (attached), or any amendments thereafter. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in 'Standard Provisions', the specifications of this Order shall apply.

25. **Change in Control or Ownership**

a. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Board.

b. To assume responsibility of and operations under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order (see S*tandard Provisions & Reporting Requirements*, August 1993, Section E.4.). Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

26. **Permit Reopener**
    The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order will or have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

27. **NPDES Permit**
    This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective on July 1, 2002 provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

28. **Order Expiration and Reapplication**
    a. This Order expires on May 31, 2007.
    b. In accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, the Discharger must file a report of waste discharge no later than 180 days before the expiration date of this Order as application for reissue of this permit and waste discharge requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 19, 2002.

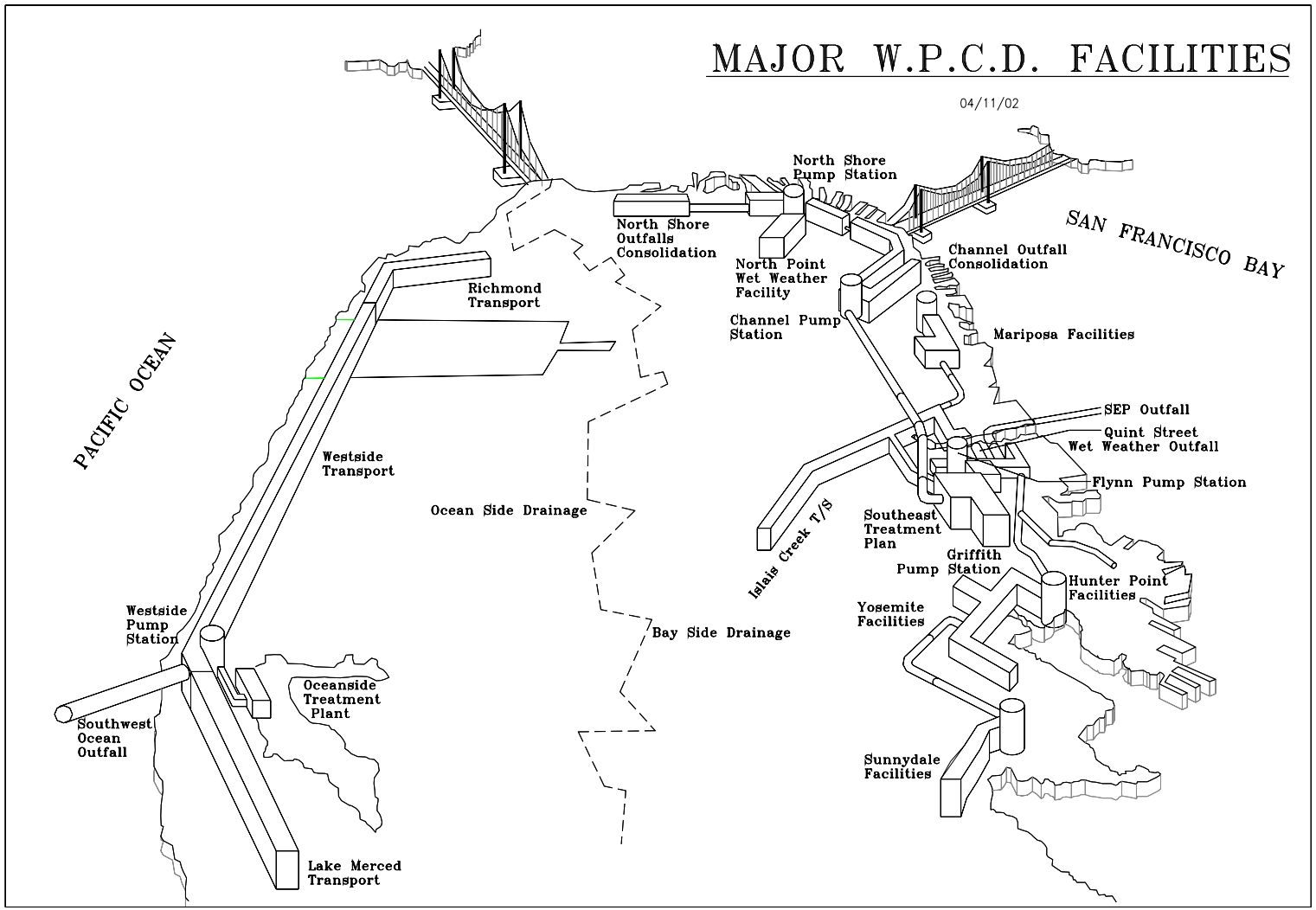
_____
LORETTA K. BARSAMIAN
Executive Officer

Attachments:
A. Discharge Facility Location Map
B. Combined Sewer Overflow Structures
C. Discharge Facility Treatment Process Diagram
D. Self-Monitoring Program, Part B
E. Factsheet
F. Pretreatment Program Requirements

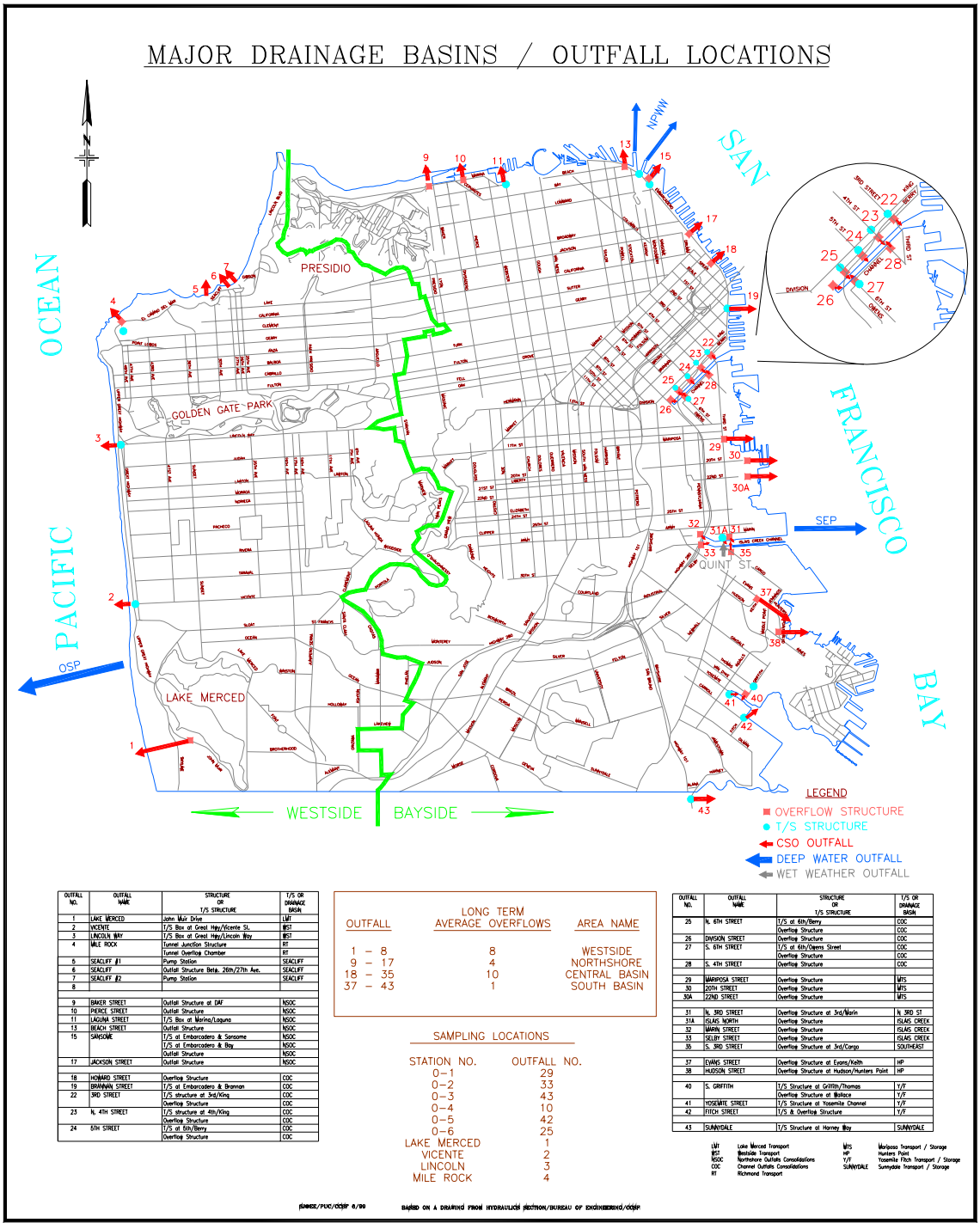
The following attachments are part of this Order, but are not attached because of volume. These documents are available on the Board's website at www.swrcb.ca.gov/rwqcb2, or by calling the Board at (510) 622-2300.

G. Self-Monitoring Program Part A, August 1993
H. Standard Provisions and Reporting Requirements, August 1993
I. Board Resolution No. 74-10
J. August 6, 2001 Regional Board staff letter, "Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy"

Attachment A - Discharge Facility Location Map



Attachment B – Combined Sewer Overflow Structures



OUTFALL NO.	OUTFALL NAME	STRUCTURE OR T/S STRUCTURE	T/S OR DRAINAGE BASIN
1	LAKE MERCED	John Muir Drive	LMT
2	VICENTE	T/S Box at Great Hgy/Vicente St.	WST
3	LINCOLN WAY	T/S Box at Great Hgy/Lincoln Way	WST
4	MILE ROCK	Tunnel Junction Structure	RT
		Tunnel Overflow Chamber	RT
5	SEACLIFF #1	Pump Station	SEACLIFF
6	SEACLIFF	Outfall Structure Beta, 26th/27th Ave.	SEACLIFF
7	SEACLIFF #2	Pump Station	SEACLIFF
8			
9	BAKER STREET	Outfall Structure at DAF	NSOC
10	PIERCE STREET	Outfall Structure	NSOC
11	LAGUNA STREET	T/S Box at Marina/Laguna	NSOC
13	BEACH STREET	Outfall Structure	NSOC
15	SANSOME	T/S at Embarcadero & Sansome	NSOC
		T/S at Embarcadero & Bay	NSOC
		Outfall Structure	NSOC
17	JACKSON STREET	Outfall Structure	NSOC
18	HOWARD STREET	Overflow Structure	COC
19	BRANNAN STREET	T/S at Embarcadero & Brannan	COC
22	3RD STREET	T/S structure at 3rd/King	COC
		Overflow Structure	COC
23	N. 4TH STREET	T/S structure at 4th/King	COC
		Overflow Structure	COC
24	5TH STREET	T/S at 5th/Berry	COC
		Overflow Structure	COC

OUTFALL	LONG TERM AVERAGE OVERFLOWS	AREA NAME
1 – 8	8	WESTSIDE
9 – 17	4	NORTHSHORE
18 – 35	10	CENTRAL BASIN
37 – 43	1	SOUTH BASIN

SAMPLING LOCATIONS

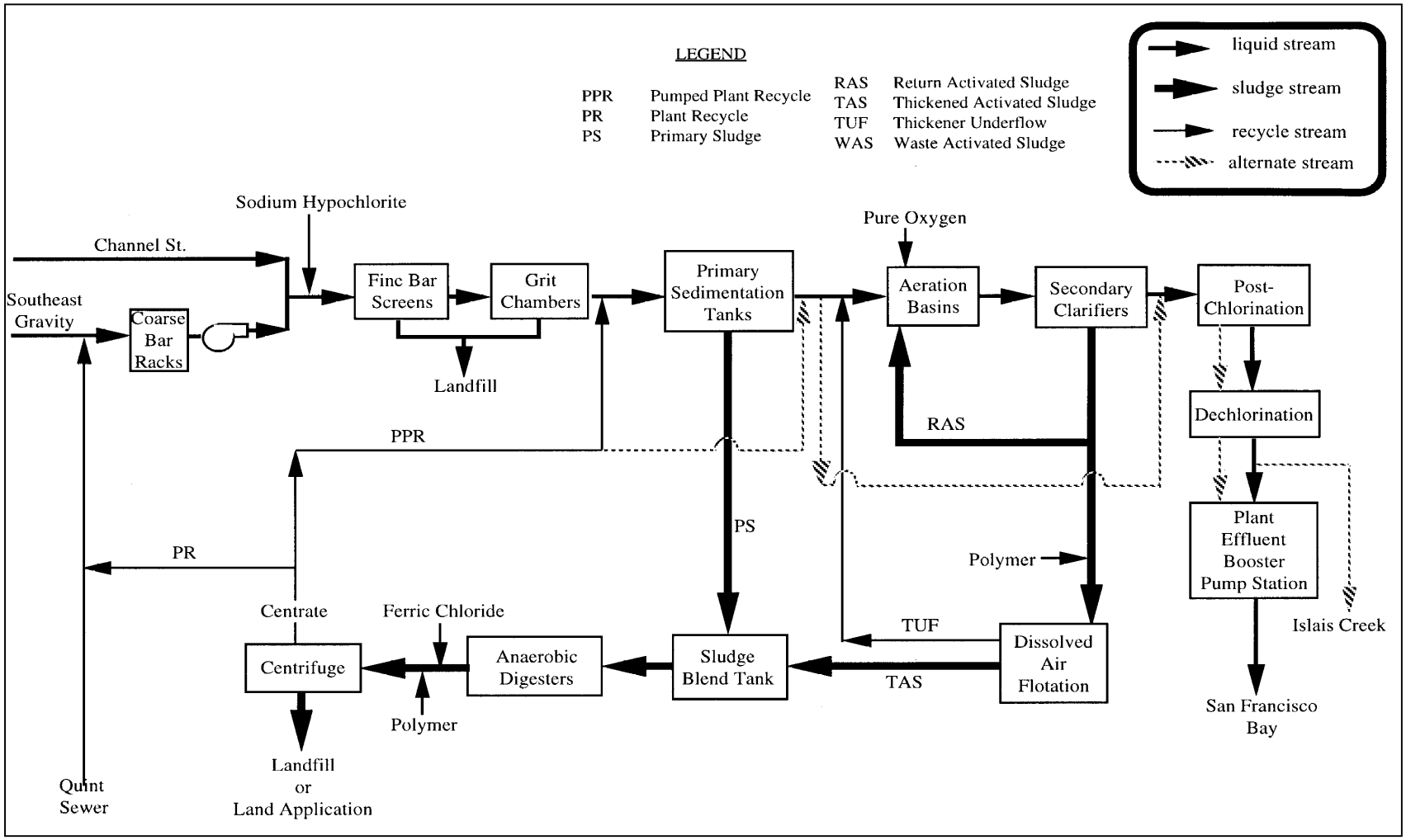
STATION NO.	OUTFALL NO.
0-1	29
0-2	33
0-3	43
0-4	10
0-5	42
0-6	25
LAKE MERCED	1
VICENTE	2
LINCOLN	3
MILE ROCK	4

OUTFALL NO.	OUTFALL NAME	STRUCTURE OR T/S STRUCTURE	T/S OR DRAINAGE BASIN
25	N. 6TH STREET	T/S at 6th/Berry	COC
		Overflow Structure	COC
26	DIVISION STREET	Overflow Structure	COC
27	S. 6TH STREET	T/S at 6th/Owens Street	COC
		Overflow Structure	COC
28	S. 4TH STREET	Overflow Structure	COC
29	MARIPOSA STREET	Overflow Structure	MTS
30	20TH STREET	Overflow Structure	MTS
30A	22ND STREET	Overflow Structure	MTS
31	N. 3RD STREET	Overflow Structure at 3rd/Marin	N. 3RD ST
31A	ISLAIS NORTH	Overflow Structure	ISLAIS CREEK
32	MARIN STREET	Overflow Structure	ISLAIS CREEK
33	SELBY STREET	Overflow Structure	ISLAIS CREEK
35	S. 3RD STREET	Overflow Structure at 3rd/Cargo	SOUTHEAST
37	EVANS STREET	Overflow Structure at Evans/Keith	HP
38	HUDSON STREET	Overflow Structure at Hudson/Hunters Point	HP
40	S. GRIFFITH	T/S Structure at Griffith/Thomas	Y/F
		Overflow Structure at Wallace	Y/F
41	YOSEMITE STREET	T/S Structure at Yosemite Channel	Y/F
42	FITCH STREET	T/S & Overflow Structure	Y/F
43	SUNNYDALE	T/S Structure at Harney Way	SUNNYDALE

LMT Lake Merced Transport
WST Westside Transport
NSOC Northshore Outfalls Consolidations
COC Channel Outfalls Consolidations
RT Richmond Transport
MTS Mariposa Transport / Storage
HP Hunters Point
Y/F Yosemite Fitch Transport / Storage
SUNNYDALE Sunnydale Transport / Storage

SMMEZ/PUC/CCSF 8/99 BASED ON A DRAWING FROM HYDRAULICS SECTION/BUREAU OF ENGINEERING/CCSF

Attachment C - Discharge Facility Treatment Process Diagram



Attachment D – Self-Monitoring Program, Part B

Attachment E – Factsheet

Attachment F – Pretreatment Program Requirements

Attachment G – Self-Monitoring Program Part A, August 1993

Attachment H – Standard Provisions and Reporting Requirements, August 1993

Attachment I – Board Resolution No. 74-10

Attachment J – August 6, 2001, Regional Board staff letter, "Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy"

CITY AND COUNTY OF SAN FRANCISCO

DEPARTMENT OF PUBLIC WORKS

ORDER NO. 158170

This Order is being adopted in compliance with the requirements of the Federal Clean Water Act, as amended, and attendant Environmental Protection Agency regulations. Industrial waste discharge limits on wastewater discharges into the City's sewerage system have been proposed for adoption pursuant to this Order.

Comments and testimony have been received at a Public Hearing on December 18, 1991, at Room 228, City Hall, City and County of San Francisco, CA. Documents consisting of the Final Report on Local/General Discharge Limitation Development, REED International Ltd., Berkeley, CA, July 1991; California Regional Water Quality Control Board letter of approval, dated September 23, 1991; and Bureau of Environmental Regulation and Management staff report, dated November 18, 1991, can be found at the Bureau office at file number 382 upon request.

Pursuant to Chapter X (Public Works Code) of Part II of the San Francisco Municipal Code, Article 4.1, the Director of Public Works hereby adopts the following provisions:

1. The characteristics of any 24 hour composite sample representative of a wastewater discharge generated over that period of time shall not exceed the following concentration-based numerical limits:

Pollutant/Pollutant Parameter	Limit (mg/1)
Arsenic (as Total)	4.0
Cadmium (as Total)	0.5
Chromium (As Total)	5.0
Copper (as Total)	4.0
Lead (as Total)	1.5
Mercury (as Total)	0.05
Nickel (as Total)	2.0
Silver (as Total)	0.6
Zinc (as Total)	7.0
Phenols	23.0
Cyanide (As Total)	1.0

2. These numerical limits shall apply at the point of wastewater discharge into the sewerage system of the City and County of San Francisco with the proviso that no discharger shall increase the use of process water or, in any other way, attempt to dilute a discharge as a

partial or complete substitute for adequate wastewater management to achieve compliance with the requirements of this Order;

3. On an individual discharger basis, the Director may consider inclusion of local limits greater than those specified in this Order provided that the two following conditions are met:

   a. the discharger's inability to meet concentration-based limits specified in this Order is caused solely by implementation of a significant water reclamation or water reuse program at the discharger facility, and

   b. the amended concentration-based limit does not result in an increase in the mass emission of that pollutant from the discharger facility;

4. In addition to any other provision of this order, all dischargers must comply with all the requirements of Chapter X (Public Works Code) of Part II of the San Francisco Municipal Code, Article 4.1 ("Industrial Waste Ordinance");

5. All of the pollutants/pollutant parameters specified above are defined in the Federal regulations at 40 CFR Part 136 (1991);

6. This Order rescinds City and County of San Francisco Department of Public Works Order No. 104,407, adopted March 3, 1976;

7. The provisions of this Order are effective immediately;

Original Signed
Richard J. Evans
Director of Public Works

Date of Order: Dec. 18, 1991

ARTICLE 4.1 INDUSTRIAL WASTE

SAN FRANCISCO PUBLIC WORKS CODE

SEC. 118. PURPOSE.

The purpose of this Article and the City's industrial waste pretreatment program is to protect human health and the environment by preventing the discharge of pollutants into the sewerage system that would: (i) obstruct or damage the system; (ii) interfere with, inhibit or disrupt treatment facilities and processes, or the processing, use or disposal of sludge; (iii) pass through the sewerage system and contribute to violations of regulatory requirements imposed on the City; or (iv) otherwise harm, or threaten to harm human health or the environment. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 119. DEFINITIONS.

For the purpose of this Article, the following definitions shall apply:

a) **Act.** The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et seq.
b) **Approved Side Sewer.** A sewer constructed and maintained in accordance with applicable City laws and regulations.
c) **Baseline Monitoring Report.** A comprehensive report submitted to the General Manager by certain dischargers pursuant to Section 127. This report shall comply with the requirements of federal regulations at 40 CFR 403.12(b)(1990), which is incorporated by reference in this Article.
d) **Bioaccumulative Toxic Substance.** A toxic substance that concentrates in living organisms through direct assimilation or accumulation in the food chain, as defined in Title 22, California Code of Regulations and any amendments thereto.
e) **Biochemical Oxygen Demand (BOD) Test.** The empirical bioassay-type procedure specified in federal regulations at 40 CFR Part 136 (1990) that measures the dissolved oxygen consumed by microbial life while assimilating and oxidizing the organic matter present.
f) **Categorical Pretreatment Standard or Pretreatment Standard.** A regulation containing pollutant discharge limits promulgated by the United States Environmental Protection Agency (EPA) in accordance with Sections 307(b) and (c) of the Act.
g) **City.** The City and County of San Francisco.
h) **Class I Permit.** An order issued by the General Manager that grants a significant industrial user permission to discharge into the City's sewerage system.
i) **Class II Permit.** An order issued by the General Manager that grants a minor discharger permission to discharge into the City's sewerage system.
j) **Department.** Unless otherwise stated, the Public Utilities Commission of the City and County of San Francisco.
k) **General Manager.** The General Manager of the Public Utilities Commission of the City, or a designated representative of the General Manager.
l) **Discharge.** The direct or indirect introduction of pollutants or wastewater into the sewerage system.
m) **Discharger.** The owner of record, lessee, sublessee, mortgagee in possession, or any person, whether located within or outside City boundaries, that (i) discharges or threatens to discharge pollutants into the sewerage system, or (ii) is responsible for the process which directly or indirectly introduces pollutants into the sewerage system.

n) **Flammable or Explosive Substances.** Pollutants which create a fire or explosion hazard in the sewerage system, including, but not limited to, pollutants with a closed cup flashpoint of less than 140ø Fahrenheit (60ø Celsius), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3828-81.

o) **Grab Sample.** An individual sample of wastewater collected over a period of time not exceeding 15 minutes, as defined in federal regulations at 40 CFR 403.7(d)(2)(iv) (1990).

p) **Hydrocarbon Oil and Grease.** The empirical test for that fraction of total recoverable oil and grease that is of a petroleum nature as specified in federal regulations at 40 CFR Part 136 (1990).

q) **Industrial User.** Used interchangeably with Discharger.

r) **Interference.** An inhibition or disruption of the sewerage system, treatment processes or operations, or sludge processes, including the use or disposal of sludge, which causes or threatens to cause a violation of any requirement of the City's permits to operate sewage treatment facilities as defined by State or federal laws and regulations. Violations include, but are not limited to, an increase in the magnitude or duration of a violation and the prohibition of City use or disposal of sludge.

s) **Minor Discharger.** A discharger other than a significant industrial user.

t) **New Source.** Any person who becomes or may become a discharger subject to this Article under the following circumstances:

   (i) The person proposes to discharge wastewater into the sewerage system or submits a Class I or Class II permit application for the proposed initial wastewater discharge from any location, or

   (ii) the person submits a permit application for a proposed discharge of trucked waste under Section 124(d), or

   (iii) the person is notified that a proposed discharge, or a modification or addition to an existing discharge, will be subject to Categorical Pretreatment Standards pursuant to a certification under 40 CFR 403.6 (1990), or any amendment thereto, or

   (iv) the discharge results from a new source as defined in 40 CFR 403.3(k) (1990), regardless of when a permit application is submitted, or

   (v) the discharge is determined to be subject to any new source requirements of this Article by the General Manager.

u) **Ninety Day (90-Day) Compliance Report.** A compliance report submitted to the General Manager by certain dischargers pursuant to Section 127(d) or a permit, notifying the General Manager whether compliance has been or is being achieved. For Class I permittees, this report shall comply with the requirements of federal regulations at 40 CFR 403.12(d) (1990), which are incorporated by reference in this Article.

v) **NPDES (National Pollutant Discharge Elimination System) Permit.** Any permit issued to the City by the United States Environmental Protection Agency or the State of California, applicable to the City's discharges from the sewerage system into the receiving waters pursuant to Section 402 of the Act.

w) **Order.** A written determination, revocation, authorization, permission, or document issued by the General Manager pursuant to this Article.

x) **Pass-Through.** A discharge that enters receiving waters through the sewerage system in quantities or concentrations which alone, or in combination with a discharge or discharges from other sources, causes or threatens to cause a violation of the City's NPDES permits, including an increase in the magnitude or duration of a violation.

y) **Permit.** Authorization issued to a discharger by the General Manager pursuant to Sections 124 and 125 allowing the discharge of wastewater into the City's sewerage system in accordance with all applicable laws and regulations.

z) **Person.** An individual, firm, partnership, joint venture, association, social club, fraternal organization, joint stock company, corporation, estate, trust, business trust, receiver, trustee, syndicate, any group or a combination acting as unit, the United States of America, the State of California and any political subdivision of either thereof, or any public entity organized pursuant to the laws of the United States of America or the State of California.

aa) **Pollutant.** The term pollutant means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, any substances listed in Section 123(a), (b), (c) or (e) of this Article, and industrial, municipal, or agricultural waste, which is or may be introduced into the City's sewerage system.

bb) **Properly Ground Garbage.** The wastes from the preparation, cooking, and dispensing of food which has been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in the sewerage system.

cc) **Quarterly Reports.** Reports submitted by a Class I permit holder to the General Manager as provided in EPA regulations at 40 CFR 403.12(e) (1990), which are incorporated by reference in this Article.

dd) **Receiving Waters.** The waters contiguous to the City, including, but not limited to, Central Basin, China Basin, India Basin, Islais Creek Channel, the Pacific Ocean, San Francisco Bay, South Basin, and South Bay.

ee) **Sewerage System.** All public facilities for collecting, transporting, treating and disposing of stormwater and pollutants in wastewater. The sewerage system includes facilities owned and operated by public entities other than the City, where such facilities direct wastewater into the sewerage system and are subject to the jurisdiction of the City as defined by law, contract, or interjurisdictional agreement.

ff) **Sewer Service Charge.** The charge assessed for collecting, transporting, treating and disposing of wastewater in accordance with this Article, Articles 4.2 and 4.3 of the Public Works Code, as amended from time to time, and annual rate resolutions adopted by the Board of Supervisors.

gg) **Significant Industrial User.** A person that is:

(1) Subject to Categorical Pretreatment Standards; or

(2) Discharges 25,000 gallons per day or more of wastewater, excluding sanitary, noncontact cooling and boiler blowdown wastewater; or

(3) Discharges wastewater that constitutes five percent or more of the average dry-weather hydraulic or organic (BOD, TSS) capacity of the tributary water pollution control plant; or

(4) Discharges a wastestream that, in the opinion of the General Manager, will or may adversely affect the sewerage system by causing interference, pass-through of pollutants, sludge contamination, or endangerment of City workers.

(hh) **Significant Noncompliance.** For purposes of Section 135 of this Article, a discharger is in significant noncompliance if its violation meets one or more of the following criteria:

(1) Chronic violations of wastewater discharge limits; defined here as those in which 66 percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;

(2) Technical review criteria (TRC) violations; defined here as those in which 33 percent or more of all of the measurements taken during a six-month period equal or exceed the product of the daily average maximum limit or the average limit times the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except pH);

(3) Any other violation of a discharge limitation that the General Manager believes has caused, alone or in combination with other discharges, interference or pass-through (including endangering the health of Department personnel or the general public);

(4) Any discharge of a pollutant that may cause imminent endangerment to human health, welfare or to the environment and has resulted in the General Manager's exercise of his or her emergency authority to halt or prevent such a discharge;

(5) Violation, by 90 days or more after the schedule date, of a compliance schedule milestone contained in any permit or order issued by the General Manager, for starting construction, completing construction, or attaining final compliance;

(6) Failure to provide required reports such as baseline monitoring reports, 90-day compliance reports, quarterly monitoring reports, compliance schedule progress reports, and any other reports required by the General Manager within 30 days of the due date;

(7) Failure to accurately report noncompliance; or

(8) Any other violations or group of violations which the General Manager determines will adversely affect the operation of the sewerage system or implementation of this Article.

(ii) **Sludge or Sewage Sludge.** A liquid, semisolid or solid residue that contains material removed during the treatment of wastewater discharged from domestic and nondomestic sources.

(jj) **Soluble Threshold Limit Concentration (STLC).** The concentration of a solubilized and extractable bioaccumulative or persistent toxic substance which, if equaled or exceeded in a waste, renders the waste hazardous as defined in Title 22, California Code of Regulations and its amendments.

(kk) **Total Recoverable Oil and Grease.** The empirical test for oil and grease, whether petroleum based or otherwise, as defined by EPA analytical methodology provided in federal regulations at 40 CFR Part 136 (1990).

(ll) **Total Suspended Solids (TSS) Test.** The empirical test for total suspended solids (or nonfilterable residue), specified in federal regulations at 40 CFR Part 136 (1990) that defines those solids that are retained by a glass filter and dried to constant weight at 103 - 105 degrees Celsius.

(mm) **Trucked Waste Discharger.** Persons who discharge wastewater into the sewerage system by truck hauling, rail access, a dedicated pipeline, or any means other than an approved side sewer.

(nn) **Wastewater.** Water containing pollutants, including sanitary waste and stormwater, which is or may be discharged into the sewerage system by any person subject to this Article. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 120. AUTHORITY OF THE GENERAL MANAGER.

a) The General Manager is authorized to administer and enforce the provisions of this Article; to conduct an industrial waste pretreatment program; to issue permits containing discharge requirements, indemnification and surety provisions and other conditions; to deny or revoke any permits, orders or variances issued pursuant to this Article; to promulgate local limitations imposing specific discharge requirements; to enforce the provisions of this Article by any lawful means available for such purpose; to monitor and inspect any wastewater discharger; to require dischargers to perform and submit for the General Manager's review and approval wastestream and process environmental audits and to require dischargers to implement any objectives, including reclamation and waste minimization objectives, identified by the audits; and to promulgate such orders, rules and regulations necessary to accomplish the purposes of this Article in accordance with the requirements that have been or may be promulgated by federal or state legislatures, the Environmental Protection Agency, the State Water Resources Control Board, the Regional Water Quality Control Board for the San Francisco Bay Region or other authorized agencies.

b) The General Manager is authorized to require the construction and use of pretreatment systems or devices to treat wastewater prior to discharge to the sewerage system when necessary to restrict or prevent the discharge of wastewater in violation of the Categorical Pretreatment Standards or exceeding the limits established by this Article, or to distribute wastewater discharges over a period of time. The General Manager may require any discharger to develop a compliance schedule containing dates for the commencement and completion of major events leading to the construction and operation of pretreatment systems or devices necessary for compliance with the provisions of this Article in the shortest time possible. No compliance schedule shall allow more than nine months between any two major event dates. All proposed pretreatment systems or devices shall be subject to the review and comment of the General Manager, but such review shall not relieve a discharger of the responsibility for taking all steps necessary to comply with all applicable wastewater discharge limitations and standards pursuant to this Article and other laws. All required pretreatment systems or devices shall be installed, operated and maintained at the discharger's expense.

c) The General Manager may, by permit or order, require a discharger to construct, in accordance with current City standards and at the discharger's expense, a monitoring facility in each side sewer in the street or sidewalk area, or in areas further upstream on the discharger's property, for wastewater monitoring purposes. The construction shall be completed within the time set forth in the permit or order.

d) Any permit may be revoked, modified or suspended by the General Manager, in addition to other remedies provided by law, when such action is necessary to stop a discharge or a threatened discharge that may present a hazard to the public health, safety, welfare, natural environment, or sewerage system, to prevent or stop violations of this Article, or to implement programs or policies required or requested of the City by appropriate state or federal regulatory agencies. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 121. EMERGENCY ACTIONS.

The General Manager is authorized to take all necessary actions to immediately and effectively halt or prevent any discharge or threatened discharge of pollutants to the sewerage system that may be an imminent endangerment to the health or welfare of persons or to the environment, or that interferes or threatens to interfere with the operations of the sewerage system. The discharger shall immediately cease undertaking such action or discharge of any wastewater presenting such a hazard upon verbal or written notification by the General Manager. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 122. RIGHT TO ENTER PREMISES.

a) Upon showing of proper credentials, persons authorized by the General Manager, when necessary for the performance of their duties, shall have the right to enter the discharger's premises. Such authorized personnel may have access to any facilities and records necessary for determining compliance, including, but not limited to, the ability to copy any records, inspect any monitoring equipment, and sample any wastewater subject to regulation under this Article. Notwithstanding any provision of law, persons authorized by the General Manager may enter a discharger's premises at any time if the General Manager determines that an imminent hazard to persons or property exists on or as a result of activities conducted on the discharger's premises.
b) The General Manager may inspect the process areas of a discharger, inspect chemical and waste storage areas, inspect, sample and monitor wastewater production activities. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 123. LIMITATIONS AND PROHIBITIONS

a) Any grab sample of the discharger's wastewater shall not at any time exceed any of the following numerical limitations:

	POLLUTANT PARAMETER	LIMITS
(1)	pH	6.0 min; 9.5 max
(2)	Dissolved sulfides	0.5 mg/l
(3)	Temperature (except where higher temperatures are required by law)	125ø F (52ø C)
(4)	Hydrocarbon oil and grease	100 mg/l

b) Any composite sample representative of the total discharge of the wastewater discharge generated over a production week shall not exceed the following numerical limitation:

POLLUTANT PARAMETER	LIMIT
Total recoverable oil and grease	300 mg/l

Representative composite total recoverable oil and grease samples shall be composited by grab sampling, as required in federal regulations at 40 CFR Part 403 (1990), which are incorporated by reference in this Article.

c) In addition to the provisions of this Article, all dischargers must comply with all requirements set forth in federal Categorical Pretreatment Standards and other applicable federal regulatory standards, applicable State orders and water quality control regulations, sewage discharge permits and orders issued to the City by federal and State agencies, federal and State pretreatment program approval conditions, local discharge limitations and regulations promulgated by the General Manager and the City, and any other applicable requirement regulating the discharge of wastewater into the sewerage system. The General Manager is authorized to develop and enforce such local limitations as he or she deems necessary for the City's compliance with State and federal laws and requirements and the enforcement of this Article.

d) Discharge of wastewater containing radioactive materials is permitted only if the following conditions are satisfied:
    (1) The discharger obtains a permit from the General Manager for the discharge of radioactive materials;
    (2) The discharger is authorized to use radioactive materials by the Nuclear Regulatory Commission or other governmental agency empowered to regulate the use of radioactive materials; and
    (3) The radioactive material is discharged in strict conformity with all Nuclear Regulatory Commission or other governmental agency requirements.

e) No person shall discharge, deposit, throw, cause, allow or permit to be discharged, deposited or thrown into the City's sewerage system any substance of any kind whatever, including oxygen-demanding pollutants, that may or will in any manner cause interference or pass-through, obstruct or damage the sewerage system, cause a nuisance, interfere with the proper operation, repair or maintenance of the sewerage system, interfere with the proper operation, repair or maintenance of a reclaimed water production or distribution facility, create difficulty for any workers to repair or maintain any part of the sewerage system, or directly or indirectly cause a violation of the City's federal or State sewage discharge permits or any other requirement applicable to the City. Such substances include, but are not limited to the following:
    (1) Ashes, cinders, sand, gravel, dirt, bark, leaves, grass cuttings and straw, metals, glass, ceramics and plastics, or any other solid or viscous substance capable of causing obstruction to the flow in sewers, or that will not be carried freely under the flow conditions normally prevailing in the City's sewerage system;
    (2) Any flammable or explosive substances;
    (3) Garbage, excepting properly ground garbage discharged in accordance with this Article, from dwellings and restaurants or other establishments engaged in the preparation of foods and beverages;
    (4) Any toxic, hazardous, noxious or malodorous substance that either singly or by interaction with other wastes may or will prevent maintenance of the sewerage system or create a nuisance or hazard to the safety of the public or City employees;
    (5) Any bioaccumulative toxic substance that exceeds the soluble threshold limit concentration (STLC);

(6) Any wastewater, in temperature or quantity, which will cause the temperature of influent to exceed 104ø Fahrenheit (40ø Celsius) at the point of introduction to any City wastewater treatment plant;

(7) Any liquids, solids or gases or any discharge that may cause damage or harm to any reclaimed water facility, or that may limit or prevent any use of reclaimed water authorized by Title 22 of the California Code of Regulations.

f) No person shall discharge without a permit any pollutants, except stormwater, directly or indirectly into a manhole, catchbasin, or other opening in the sewerage system other than an approved side sewer.

g) No discharger shall increase the use of process water or, in any other way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the requirements of this Article.

h) No person shall discharge groundwater or water from sumps or dewatering facilities into the sewerage system without a permit. An application for a permit pursuant to this subsection shall be submitted to the General Manager no later than 45 days prior to the proposed commencement of the discharge. Each permit for groundwater discharge shall contain appropriate discharge standards and any other appropriate requirements that must be achieved before discharge into the sewerage system may commence. Such discharges shall be subject to payment of sewer service charges in accordance with the provisions of applicable City laws. The General Manager may require the discharger to install and maintain meters at the discharger's expense to measure the volume of the discharge.

i) No person shall discharge wastewater associated with groundwater cleanup or remediation plans without first obtaining a permit. An application for a permit pursuant to this subsection shall be submitted to the General Manager no later than 45 days prior to the proposed commencement of the discharge. A permit may be issued only if an effective pretreatment system on the process stream is maintained and operated. Each permit for such discharge shall contain appropriate discharge standards based on this Article and reports or data provided by the discharger, as well as any other appropriate requirements that must be achieved at the time the discharge commences. Such discharges shall be subject to payment of sewer service charges in accordance with the provisions of applicable City laws. The General Manager may require the discharger to install and maintain meters at the discharger's expense to measure the volume of the discharge. The General Manager may require that such dischargers shall indemnify and hold harmless the City from any and all costs, claims, damages, fines, remediation costs, losses and other expenses arising from the discharge into the sewerage system.

j) The discharge of wastewater associated with asbestos abatement operations is authorized without a permit, provided that the wastewater has been pretreated through a system that provides for removal of waterborne asbestos. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 124. PERMIT PROVISIONS.

a) It shall be unlawful for any significant industrial user to discharge or cause to be discharged any wastewater whatsoever, directly or indirectly, into the sewerage system without first obtaining a Class I permit authorizing the discharge. The General Manager may require minor dischargers to obtain Class II permits containing specified requirements whenever necessary to further the objectives of this Article. It shall be unlawful for any discharger to discharge any wastewater in excess of permit requirements or to violate any other requirement of this Article.

b) Permits for wastewater discharges may include, but are not limited to, conditions and terms requiring pretreatment of wastewater before discharge; limiting discharge of certain wastewater parameters; restricting peak flow discharges; requiring standards of performance on the wastewater quality; restricting discharge to certain hours of the day; requiring payment of additional charges to defray increased costs to the City created by the wastewater discharge; requiring sampling and monitoring before and during discharge; requiring specific investigations or studies to determine methods of reducing toxic constituents in discharges; and other conditions and terms necessary to achieve the objectives of this Article. Permits shall be issued for a fixed time period not to exceed five years.

c) Each permit shall include requirements that the discharger shall reimburse the City for extraordinary costs, in addition to the applicable sewer service charge, for treatment, pumping, maintenance of the sewerage system, administration, incidental expenses, inspection and monitoring, and payment of penalties imposed on the City by enforcement agencies caused by the specific characteristics of the discharge into the sewerage system. When the discharge of wastewater or any pollutant causes an obstruction, damage or other impairment to the sewerage system, the discharger shall pay to the City an amount equal to the costs of cleaning and repairing the sewerage system, plus all related administrative costs, penalties and other incidental fees and expenses. Permits for discharges shall not be renewed unless all such costs have been paid to the City.

d) The discharge of wastewater into the sewerage system through means other than an approved side sewer is prohibited, unless authorized by a permit. This subsection does not apply to groundwater discharges authorized in accordance with Section 123(h) of this Article. Trucked waste dischargers shall obtain a permit from the General Manager prior to commencing any discharge. The General Manager shall prescribe requirements consistent with this Article and any other applicable laws and regulations, including but not limited to requirements to pay appropriate permit fees and charges. Permits shall not be granted to trucked waste dischargers that do not have San Francisco business licenses or are discharging wastewater produced, treated, or stored in facilities not located within the General Manager's jurisdiction unless the trucked waste discharger enters into a binding contractual commitment to be subject to and comply with the requirements of this Article and the exercise of the General Manager's authority granted by this Article. The General Manager may require any person subject to this subsection:

(1) To treat wastewater on its own site prior to discharge into the sewerage system, whether the discharge is through an approved side sewer or by any other means approved by the General Manager;
(2) To construct a side sewer in accordance with Department specifications and cease the discharge of wastewater in any manner other than through the approved side sewer;
(3) To provide the General Manager with a compliance schedule, as specified in Section 120(b), for meeting the provisions of this Article;
(4) To perform and submit for the General Manager's review and approval wastestream and process environmental audits and to implement any objectives, including reclamation and waste minimization objectives, identified by the audits. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 125. PERMIT PROCESS.

a) Persons discharging wastewater into the sewerage system prior to the effective date of this amendment to this Article shall submit an application for a permit when notified by the General Manager. Except as provided in Section 123(h), (i) and (j), a new source must submit an application at least 90 days prior to commencement of the discharge.

b) Applicants for either a permit, a permit modification, or a permit renewal shall complete and submit an application for each point of discharge. The General Manager, at his or her discretion, may require submission of information on the characteristics of the discharge in addition to information provided in the application. The completed application shall be submitted by the discharger not less than 90 days prior to the commencement of the discharge or the modified discharge, or in the case of a permit renewal, 90 days prior to the expiration date of an existing permit. The application shall contain the certification required by Section 127(f) of this Article and shall be signed by an authorized representative of the discharger in accordance with Section 127(g) of this Article. No person shall commence discharge prior to issuance of the permit.

c) No permit may be issued unless the applicant has complied with all requirements of this Article and all applicable City, State and federal laws; the applicant has furnished all requested information; the General Manager determines that there are adequate devices, equipment, chemicals, and other facilities to sample, meter, convey, treat, and dispose of wastewater; and the persons responsible for treatment and control are adequately trained and capable of consistently meeting permit requirements. The General Manager shall take final action on permit denial, issuance, modification, or renewal by sending a copy of the permit to the applicant by certified mail.

d) The General Manager shall post a notice of permit issuance, denial, renewal or modification at City Hall, or by publication in a newspaper of general circulation. The notice shall include a summary of the General Manager's action on the permit, and instructions for filing a public hearing request. The General Manager's action shall be final 15 days after the General Manager's posting or publication of the notice of permit action, or within the time specified in the notice, unless a public hearing request has been filed in accordance with Section 125(e).

e) Any person who deems that his or her interests or property or that the general public interest will be adversely affected by the General Manager's denial, issuance, modification, or renewal of a permit may request a public hearing within 15 days of the General Manager's posting or publication of a notice of permit action, or within the time specified in the notice. Upon receipt of a timely request for a public hearing, the General Manager shall hold a public hearing after giving the notice provided in Section 129(b). (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 126. REGISTRATION BY WASTEWATER PRODUCERS.

a) Every person within the General Manager's jurisdiction who engages in any activity or process that collects or produces wastewater and does not discharge such wastewater into the sewerage system through an approved side sewer shall register its activities with the General Manager. The General Manager shall require each registrant to provide information describing the wastewater-producing activity, the nature and characteristics of the wastewater, and the ultimate use or methods of disposal of the wastewater. Registration must be renewed annually.

b) The General Manager may take samples, inspect and monitor any activity or process subject to this Section, and may require that the collector or producer of wastewater provide monitoring and sampling information. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 127. REPORTING AND SAMPLING REQUIREMENTS.

a) All dischargers shall submit periodic reports to the General Manager, and the General Manager may require any reports or information appropriate for the nature of any discharge, on a case-by-case basis. Specific reporting requirements shall be specified in the permit, or in compliance directives and orders. Failure to submit complete and accurate reports by the date specified in an order or permit is a violation of this Article.

b) Dischargers holding Class I permits shall submit periodic reports of compliance on a quarterly basis ("Quarterly Reports"), as specified in the permit. These reports shall include a description of any violations of this Article, remedial measures undertaken by the discharger, process changes, treatment system alterations, and any other information required by the permit. Class I permittees subject to Categorical Pretreatment Standards shall include the information required by 40 CFR 403.12(e) (1990) in each Quarterly Report.

c) Any new source discharger that must comply with Categorical Pretreatment Standards shall submit a Baseline Monitoring Report at least 90 days prior to commencement of any discharge. Any discharger that becomes subject to Categorical Pretreatment Standards due to promulgation of a new Standard, or pursuant to a certification under 40 CFR 403.6(a)(4) (1990), shall submit a Baseline Monitoring Report within 180 days of the effective compliance date. Every discharger subject to a Class I permit shall submit an amended Baseline Monitoring Report whenever the volume or characteristics of its discharge significantly changes, or when required by the General Manager.

d) Dischargers subject to Class I permits shall submit a 90-day compliance report within 90 days of the compliance date of an applicable Categorical Pretreatment Standard, or, for new sources, within 90 days following commencement of the discharge.

e) Dischargers subject to a compliance schedule for the construction or operation of pretreatment systems or devices required to meet Categorical Pretreatment Standards shall submit compliance schedule progress reports not later than 14 days after each major event date and the final compliance date. All other dischargers subject to compliance schedules shall submit compliance schedule reports as ordered by the General Manager. Each progress report shall state whether or not the discharger has complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and any steps being taken to return to the established compliance schedule. The General Manager may require such additional information as necessary in any compliance schedule progress report, and may extend the date for submittal, provided that no more than nine months may elapse between any two progress reports.

f) Every person signing any report required by Paragraphs (a), (b), (c), (d), (e), or (i) of this Section shall make the following certification:
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

g) All reports must be signed by an authorized representative of the discharger. An authorized representative may be:
    (1) A principal executive officer or official, if the discharger submitting the reports required by this Section is a corporation or public agency;
    (2) A general partner or proprietor if the discharger submitting the report required by this Section is a partnership or sole proprietorship respectively;
    (3) A duly authorized representative of the individual designated in Subparagraph (1) and (2) of this paragraph if such representative is responsible for the overall operation of the facility from which the discharge originates.

h) Dischargers shall notify the General Manager prior to any substantial change in the volume or character of pollutants in any wastewater discharge and shall apply for and obtain an amended permit prior to commencement of such altered discharge.

i) Dischargers shall immediately notify the General Manager of any discharge or threatened discharge of pollutants, including but not limited to oxygen-demanding pollutants, wastes or hazardous wastes as defined in Title 22 of the California Code of Regulations, or any other substances on the discharger's premises that: (i) could cause danger to the public; (ii) may cause interference in the sewerage system; or (iii) constitutes a violation of the

requirements of this Article or a permit or order issued by the General Manager. A written report to the General Manager shall be submitted within five working days after the discharge commenced explaining the nature, volume and duration of the noncompliance or release and all remedial and preventive measures taken by the discharger. Such notification and report shall not relieve any discharger of liability for any expenses, including but not limited to, costs for countermeasures, loss or damage to the sewerage system, liability for fines imposed upon the City because of such occurrences, liability for any fines or damages because of such occurrences, or for any damages incurred by a third party.

j) All dischargers that are required to monitor their discharges shall sample in accordance with the sampling planning, methodology and equipment, and the sample processing, documentation and custody procedures specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd edition, U.S. Environmental Protection Agency, November, 1986, and any amendments thereto. The analysis of samples shall be performed in accordance with the techniques prescribed in federal regulations at 40 CFR Part 136 (1990), and amendments thereto, which are incorporated by reference in this Article.

k) Each municipality, sanitation district or local governmental entity located outside the boundaries of the City and County of San Francisco that, pursuant to contract or law, delivers wastewater to the City's sewerage system for treatment and disposal shall immediately notify the General Manager of its approval or the creation of a new source located within its jurisdiction. Each such governmental entity also shall notify each new source that its proposed discharge must comply with the provisions of this Article and other applicable laws. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 128. VARIANCES.

The General Manager shall hear and make determinations regarding applications submitted by dischargers for variances from the strict application of the requirements of this Article. Variance determinations shall be issued as specified in Section 129. The General Manager may grant variances only when such action is consistent with this Article's general purpose and intent and the general and specific rules contained in this Article. A variance shall not be granted unless the General Manager finds that the applicant is or will be in violation of this Article, and that due to circumstances beyond the reasonable control of the applicant, requiring compliance would result in unavoidable and excessive hardship. Practical difficulties associated with treatment systems or the expense of appropriate treatment shall not, standing alone, constitute circumstances beyond the reasonable control of the applicant. The General Manager shall not grant variances from applicable federal or State discharge standards. This subsection shall in no way limit the powers and authority of the General Manager pursuant to this Article. A pending variance application shall not be a defense to any enforcement action of the General Manager, or to any civil or criminal action under this Article. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 129. GENERAL MANAGER'S HEARINGS.

a) The General Manager shall hold a public hearing for the following purposes:
   (1) To grant or deny a variance application submitted pursuant to Section 128;
   (2) To issue an order that imposes an administrative civil penalty pursuant to Sections 132(c) and 133(c) of this Article;
   (3) To issue and order pursuant to Section 132 of this Article that revokes or suspends a permit;
   (4) To take public comment on a permit application under Section 125, upon timely and proper request by a person authorized pursuant to Section 125(e).

b) Notices of public hearings pursuant to this Section shall be given by publication in a newspaper of general circulation in the City for at least two days and not less than 10 days prior to the date of such hearing. Written notice setting forth the date of a public hearing shall be sent to interested persons by certified mail at least 10 days in advance of such hearing. The notice shall state the nature and purpose of the public hearing.

c) At the conclusion of a public hearing, the General Manager may take any action consistent with this Article and other applicable law. The General Manager's decision shall be in writing, and shall contain a statement of reasons in support of the decision. Following a public hearing, the decision of the General Manager shall be sent by certified mail to the discharger and any other interested person. The General Manager's action shall be final unless an appeal, if provided by this Article, is filed in accordance with Section 131.

d) Within 30 days after service of a copy of a final order issued after a public hearing required by Subsection (a) of this Section, any person so served may file with the Superior Court a petition for writ of mandate for review of the order. Any person who fails to file the petition within this 30-day period may not challenge the reasonableness or validity of an order of the General Manager in any judicial proceedings brought to enforce the order or for other remedies. Except as otherwise provided in this Section, Section 1094.5 of the California Code of Civil Procedure shall govern any proceedings conducted pursuant to this subsection. In all proceedings pursuant to this Section, the court shall uphold the order of the General Manager if the order is based upon substantial evidence in the whole record. The filing of a petition for writ of mandate shall not stay any accrual of any penalties assessed pursuant to this Article. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 130. GENERAL MANAGER'S HEARINGS FOR RULES AND REGULATIONS.

a) Before the General Manager approves the issuance or amendment of any rule or regulation, the General Manager shall provide a 30-day public comment period by providing published notice in an official newspaper of general circulation in the City and County of San Francisco of the intent to issue or amend the rule or regulation. The notice shall state the date, time and place of a public hearing at which the General Manager will take public comment on the proposed rule or regulation.

b) At the conclusion of the public hearing, the General Manager may take any action consistent with this Article and other applicable law.

c) Subject to the requirements of this Section, the General Manager is authorized to:
   (1) Adopt or amend concentrations of wastewater constituents for the purpose of assessing sewer service charges for any discharger not required to sample and analyze its wastewater.
   (2) Adopt or amend any local discharge limitations, rules or regulations required by law or deemed necessary by the General Manager to achieve the purposes of this Article. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 131. INDUSTRIAL WASTE REVIEW BOARD.

a) **Membership.** There is hereby continued an Industrial Waste Review Board which shall consist of five members who have had not less than five years of professional experience related to water pollution abatement. Members of the Board will serve on call on a per diem basis. The General Manager shall make succeeding four-year appointments at the expiration of the existing appointments. The members so chosen will be the voting members of the Board. The Manager of the Bureau of Water Pollution Control, or a designated representative, shall be an ex officio member of the Board, participating in the deliberations of the Board without vote or compensation. The General Manager shall appoint a member of his or her staff to act as Secretary of the Board.

b) **Compensation.** The voting members of the Board shall receive compensation of $30 per hour during the time that the Board is convened.

c) **Quorum.** Three voting members of the Board shall constitute a quorum. Any decision of the Board shall require three concurring votes.

d) **Powers of the Board.** The Board shall hear and decide appeals from the General Manager's denial, issuance, renewal or modification of a permit pursuant to Section 125, and from the General Manager's decision on a variance pursuant to Section 128. The Board shall not have jurisdiction to hear appeals of orders issued pursuant to Sections 121 or 132. Upon hearing an appeal taken pursuant to this Section, the Board may, subject to the same limitations that are placed upon the General Manager by this Article, approve, disapprove or modify the decision appealed from, in conformity with the following requirements:

(1) In the case of a variance application, the Board shall specify in its findings, as part of a written decision, facts sufficient to establish why the application meets or does not meet, as the case may be, the requirements set forth in Section 128, and if the requirements are deemed to be met, the Board shall prescribe the details and conditions of the variance.

(2) In the case of any permit denial, issuance, modification or renewal, if the determination of the Board differs from that of the General Manager, it shall state in writing any specific error or errors in interpretation of the provisions of this Article, abuse of discretion on the part of the General Manager, or any other basis for revision. The Board shall specify in its written findings the facts relied upon in arriving at its determination.

e) **Appeal.**

(1) **Filing an Appeal.** Appeals shall be filed with the Secretary of the Board within 15 days after receipt of the decision of the General Manager under Section 129. The Board shall not have jurisdiction to hear an appeal filed after the 15-day period has passed. The Board shall not have jurisdiction to hear an appeal of the denial, issuance, renewal, or modification of the permit if a General Manager's hearing was not requested in accordance with Section 125. A filing fee of $350 made payable to the General Manager shall accompany the filing of an appeal.

(2) **Standing.** Any person that presented evidence or testimony at a General Manager's hearing on a variance may appeal the General Manager's variance decision to the Board. Appeals of the General Manager's decision on a permit may only be filed by persons authorized pursuant to Section 125(e).

(3) **Contents of Appeal.** The appeal must specifically set forth the alleged error, abuse of discretion or any other basis for the appeal and contain relevant arguments and documentation in support of the appellant's claim.

(4) **Hearing.** The procedure and requirements for the transmittal of the record, notice of hearing, and the record in connection with any appeal under this Section shall be prescribed by the Board.

f) **Hearing Procedure.** Hearings by the Board shall be held at the call of the Secretary of the Board and at such times as the Board may determine. Hearings shall be conducted in accordance with the following procedure:

(1) The date of the hearing shall not be less than one week nor more than four weeks after receipt of filing the appeal by the Secretary of the Board.

(2) The General Manager will present evidence and a recommendation for resolution. The Board shall hear evidence from the appellant, but appellant may present relevant information not previously submitted to the General Manager only if its failure to present such information to the General Manager was caused by events beyond its control or the Board determines that introduction of such information is essential to the fair resolution of the controversy.

(3) The Board shall make a final decision within 90 days from the date of filing the appeal, and shall communicate its decision to the General Manager, all appellants, and the discharger. No response from the Board within 90 days will constitute approval of the General Manager's final decision.

(4) The General Manager shall designate a certified court reporter as official reporter of the Board. The reporter shall attend all hearings of the Board and report all testimony, the objections made, and the ruling of the Board. The fees for the reporter for reporting all of the proceedings and testimony as outlined above shall be a legal charge against the City. The fees for transcripts of the proceedings shall be at the expense of the party requesting the transcript as prescribed by Government Code Section 69950, and the original transcript shall be filed with the Secretary at the expense of the party ordering the transcript. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 132. ENFORCEMENT AND COST REIMBURSEMENT.

a) **Cease and Desist Orders.** Whenever the General Manager finds that a discharge of wastewater is taking place or threatening to take place in violation of any requirement imposed pursuant to this Article, or pursuant to any order, regulation, or permit issued by the General Manager, the General Manager may issue an order directing the discharger to cease and desist such discharges and directing the discharger to achieve compliance in accordance with a detailed schedule of specific actions the discharger must take in order to correct or prevent violations of this Article. The General Manager may order the revocation or suspension of any permit or variance. Any order issued by the General Manager under this Section may require the discharger to provide such information as the General Manager deems necessary to explain the nature of the discharge. The General Manager may require in any cease and desist order that the discharger pay to the City the costs of any extraordinary inspection or monitoring deemed necessary by the General Manager because of the violation.

b) **Cleanup and Abatement Orders.**
   (1) Any person who has discharged or discharges pollutants or wastewater in violation of this Article or any order, regulation, or prohibition issued by the General Manager, shall upon order of the General Manager and at the discharger's expense clean up such wastewater and abate the effects of the unlawful discharge.
   (2) The General Manager may perform any cleanup, abatement or remedial work required under Subdivision (1) when required by the magnitude of the violation or when necessary to prevent pollution, nuisance or injury to the environment. Such action may be taken in default of, or in addition to, remedial work by the discharger or other persons, regardless of whether injunctive relief is being sought.
   (3) Any discharger who has violated or is in violation of the requirements of this Article shall be liable to the City for costs incurred in abating the effects thereof, or taking other remedial action, including but not limited to administrative costs, inspection costs, attorneys fees, and penalties or other liability imposed upon the City by other agencies.

c) **Administrative Civil Penalty Orders.**

(1) The General Manager may issue a complaint to any discharger on whom an administrative civil penalty may be imposed pursuant to Section 133(c). The complaint shall allege the acts or failure to act that constitute a basis for liability and the amount of the proposed administrative civil penalty. The General Manager shall serve the complaint by personal service or certified mail and shall inform the discharger so served that a hearing shall be conducted in accordance with Section 129 of this Article, unless the discharger waives the right to a hearing. If the discharger waives the right to a hearing, the General Manager shall issue an order setting liability in the amount proposed in the complaint unless the General Manager and the discharger have entered into a settlement agreement, in which case the General Manager shall issue an order setting liability on the amount specified in the settlement agreement. The settlement agreement shall be approved by the City Attorney as to form. Where the discharger has waived the right to a hearing or where the General Manager and the discharger have entered into a settlement agreement, the order shall not be subject to review by any court or governmental agency.

(2) Any hearing required by Subsection (1) shall be conducted in accordance with Section 129.

(3) Orders imposing civil liability issued under this Section shall become effective and final upon issuance. Payment of civil penalties to the General Manager shall be made within 30 days of issuance of the order. Copies of such orders shall be served by personal service or by certified mail upon the discharger served with the complaint and upon other persons who appeared and participated at the hearing and requested a copy.

d) **Injunctive Relief.**

(1) Upon the failure of any discharger or dischargers to comply with any requirement of this Article, a permit, or any regulation, prohibition, cease and desist order, cleanup and abatement order, or any other order issued by the General Manager, the City Attorney, upon request of the General Manager, may petition the proper court for injunctive relief, payment of civil penalties, and any other appropriate remedy, including restraining such discharger or dischargers from continuing any prohibited activity and compelling compliance with lawful requirements.

(2) In any civil action brought pursuant to this Article in which a temporary restraining order, preliminary injunction, or permanent injunction is sought, it is not necessary to allege or prove at any stage of the proceeding that irreparable damage will occur should the temporary restraining order, preliminary injunction, or permanent injunction not be issued, or that the remedy at law is inadequate. The court shall issue a temporary restraining order, preliminary injunction, or permanent injunction in a civil action brought pursuant to this Article without the allegations and without the proof specified above.

e) **Termination of Discharge.** In addition to other remedies, when in the judgment of the General Manager the discharger has not or cannot demonstrate satisfactory progress toward compliance with the requirements of this Article, the General Manager, after providing written notice to the discharger by certified mail 30 days in advance of such action, may sever or plug the connection from the discharger's side sewer to the sewerage system or otherwise prevent the discharge of wastewater from the discharger's facilities to the sewerage system.

f) Orders issued under this Section shall become final upon receipt by the discharger or as specified by the General Manager. Orders may be issued by certified mail, or, except for orders under Paragraph (e), by personal service.

g) The discharger may request a public hearing within 15 days of the final date of an order issued under Subsections (a), (b) or (e) of this Section. The effective date of such an order shall not be postponed solely because of the filing of a request for a hearing. Notice of a public hearing and of the final decision of the General Manager shall be given as provided in Section 129.

h) **Cost Reimbursement by Citizens.**

(1) In any instance where the General Manager issues an order to a discharger under this Section for a violation of this Article, and the General Manager determines that information provided by a citizen contributed to the identification of the violation and issuance of the order, the discharger shall, in addition to any other fees or costs authorized under this Section, pay the reasonable costs directly incurred by the citizen in obtaining the information in accordance with the requirements set forth in this subsection. For purposes of this subsection, "citizen" shall have the meaning defined in Section 139(a) of this Article.

(2) Any citizen seeking the recovery of costs pursuant to this subsection shall have the burden of documenting the costs and proving that the costs sought to be recovered are reasonable and accurate. Except as set forth in subparagraph (3), reimbursable costs shall be limited to documented costs directly incurred by the citizen plus an additional five percent of the total amount authorized for recovery of overhead expenses.

(3) In the alternative, where a citizen is either unable, or chooses not to document reimbursable costs otherwise recoverable under this subsection, the discharger shall, in addition to any other fees or costs authorized under this Section, pay $50 to the citizen for cost reimbursement. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 114-97, App. 3/28/97; Ord. 116-97, App. 3/28/97)

SEC. 133. PENALTIES.

a) **Criminal Penalties.**

(1) Except as provided in Subsection (a)(2) of this Section, any person who violates any provision of this Article is guilty of a misdemeanor and upon conviction shall be fined in an amount not exceeding $1,000 or be imprisoned in County Jail for not more than six months, or both. Each day each violation is committed or permitted to continue shall constitute a separate offense.

(2) Any person who violates Section 123(e), Section 123(f), or Section 123(h) of this Article shall be guilty of:

A) A misdemeanor in accordance with Subsection (a)(1) of this Section; or

B) An infraction punishable by a fine in an amount not in excess of $500. Each day each violation is committed or permitted to continue shall constitute a separate offense.

(3) Falsifying of Information. Any person who knowingly makes any false statement or misrepresentation in any record, report plan, or other document filed with the General Manager, or tampers with or knowingly renders inaccurate any monitoring device or sampling and analysis method required under this Article, shall be punished by a fine of not more than $25,000 or by imprisonment in County Jail for not more than six months, or both.

b) **Civil Penalties.**

(1) Any person who, without regard to intent or negligence, causes or permits any discharge of wastewater or hazardous waste, as defined in Title 22, California Code of Regulations and its amendments, into the City's sewerage system, except in accordance with all permit requirements and other provisions of this Article; violates any provision of a cease and desist order or cleanup and abatement order issued by the General Manager; or violates any requirement or prohibition of this Article, shall be liable civilly to the City in an amount not to exceed $10,000 per day for each violation that occurs.

(2) Any person who intentionally or negligently causes or permits any discharge of wastewater or hazardous waste, as defined in Title 22, California Code of Regulations, into the City's sewerage system, except in accordance with all permit requirements and other provisions of this Article; violates any provision of a cease and desist order or cleanup and abatement order issued by the General Manager; or violates any requirement or prohibition of this Article, shall be liable civilly to the City in an amount not to exceed $25,000 per day for each violation that occurs.

c) **Administrative Civil Penalties.**

(1) Notwithstanding Subsection (b), any person who, without regard to intent or negligence, causes or permits any discharge of wastewater or hazardous waste, as defined in Title 22, California Code of Regulations and its amendments, into the City's sewerage system, except in accordance with all permit requirements and other provisions of this Article; violates any provision of a cease and desist order or cleanup and abatement order issued by the General Manager; or violates any requirement or prohibition of this Article, shall be liable civilly to the City in an amount not to exceed $1,000 per day for each violation that occurs.

(2) Notwithstanding Subsection (b), any person who intentionally or negligently causes or permits any discharge of wastewater or hazardous waste, as defined in Title 22, California Code of Regulations, into the City's sewerage system, except in accordance with all permit requirements and other provisions of this Article; violates any provision of a cease and desist order or cleanup and abatement order issued by the General Manager; or violates any requirement or prohibition of this Article, shall be liable civilly to the City in an amount not to exceed $2,000 per day for each violation that occurs.

(3) A civil penalty may not be imposed pursuant to this subsection and Subsection (b) for the same violation.

d) Remedies under this Section are in addition to, and do not supersede or limit, any and all other civil or criminal remedies available to the City under local, State and federal law. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 134. LIENS.

a) Costs and charges incurred by the City by reason of the abatement of any violation of this Article, including but not limited to monitoring and inspection costs; a delinquency in the payment of a bill for any industrial waste charge in excess of 30 days; and any civil penalties assessed against a discharger for violations of this Article or against the City for violations caused by a discharger shall be an obligation owed by the owner of the property where the discharge originated in the City. The City shall mail to the owner of the property where the discharge occurred a notice of the amounts due and a warning that lien proceedings will be initiated against the property if the amounts due are not paid within 30 days after mailing of the notice.

b) Liens shall be created and assessed in accordance with the requirements of Article XX of Chapter 10 of the San Francisco Administrative Code, commencing with Section 10.230. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97; Ord. 322-00, File No. 001917, App. 12/28/2000)

SEC. 135. NEWSPAPER NOTIFICATION OF VIOLATIONS.

The General Manager shall provide for annual notice in the City's largest circulated newspaper of dischargers that were in significant noncompliance during the preceding 12 months. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 136. DISCLOSURE OF INFORMATION.

a) Any records, reports, or information submitted by a discharger to the General Manager, whether made in writing or by communication incorporated in Department reports, shall be available to the public, except upon a showing made by a discharger satisfactory to the General Manager that public disclosure of records, reports, or information which the General Manager or other authorized personnel has received would divulge methods or processes entitled to protection as confidential trade secrets. All such records, reports, or information at any time may be disclosed to other authorized City personnel or any local, State or federal agency.

b) Whenever the General Manager makes a written request or orders that a discharger furnish information, the request or order shall include a notice that:
    (1) States that the discharger may assert a business confidentiality claim covering specified information; and
    (2) States that if no such claim accompanies the information when it is received by the General Manager, it may be made available to the public without further notice to the discharger.

c) In assessing the validity of a business confidentiality claim, the General Manager shall determine whether the information is entitled by statute or judicial order to confidential treatment. In the absence of such a finding, the General Manager shall make the information available for public disclosure.

d) Notwithstanding any other provision of this Section, discharger wastewater data is not confidential and shall be made available to the public without restriction. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 137. RETENTION OF DISCHARGER INFORMATION.

Any reports that must be submitted pursuant to Section 127 to the General Manager by a discharger shall be retained for a minimum of five years and shall be made available for inspection and copying by the General Manager or any State or federal agency. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the discharger or the operation of the City's pretreatment program or when requested by any State or federal agency. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 138. SEVERABILITY.

If any section, subsection, subdivision, paragraph, sentence, clause, or phrase of this Article, is for any reason held to be unconstitutional, invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Article. The Board of Supervisors declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, or phrase of this Article irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases could be declared unconstitutional, invalid or ineffective. (Added by Ord. 19-92, App. 1/23/92; amended by Ord. 116-97, App. 3/28/97)

SEC. 139. CITIZEN ENFORCEMENT ACTIONS.

a) **Authorization.** Any citizen may commence a civil action on his or her own behalf against any person who is alleged to have violated, or to be in violation of: (i) any requirement imposed pursuant to this Article; or (ii) any order, regulation, variance or permit issued by the General Manager pursuant to this Article. For purposes of this Section and Subsection (h) of Section 132, "citizen" shall mean either of the following:
   (1) An individual who resides in the City; or
   (2) A corporation, partnership or association that maintains its principal office in the City, and which has an interest which is, or may be, adversely affected.

b) **Notice.** No action may be commenced under Subsection (a) of this Section:
   (1) Prior to 60 days after the citizen has given notice of the alleged violation to (A) the General Manager, (B) the City Attorney, (C) the District Attorney, and (D) the alleged violator or violators of the requirement, order, regulation, variance or permit; or
   (2) If the City has commenced and is diligently prosecuting a civil, criminal, or administrative penalty action pursuant to this Article and the City's enforcement response plan to require compliance with the requirement, order, regulation, variance or permit, provided that in any such action brought in State court, any citizen may intervene as a matter of right.

c) **Intervention: Protection of City Interests.**
   (1) In any action brought under this Section where the City is not a party, the City may intervene as a matter of right.
   (2) Whenever an action is brought under this Section, the plaintiff shall serve a copy of the complaint on the City Attorney and General Manager. No consent judgment or settlement shall be entered in an action in which the City is not a party prior to 30 days following receipt of the proposed consent judgment or settlement by the City Attorney and General Manager

d) **Litigation Costs.** The court in issuing any final order brought pursuant to this Section shall award costs of litigation (including reasonable attorney and expert witness fees) to any prevailing or substantially prevailing party who brought the underlying action, when the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought by the citizen, require a filing of a bond or undertaking in accordance with State law and local court rules.

e) **Other relief not restricted.**

(1) Nothing in this Section shall restrict any right which any person may have under any statute, ordinance, or common law to seek enforcement of any requirement prescribed by or under this Article, or to seek any other relief.

(2) Nothing in this Section shall be construed to prohibit or restrict the City from bringing any administrative, civil or criminal action or obtaining any remedy or sanction against any person to enforce any requirement set forth in this Article. Nothing in this Section shall be construed to authorize judicial review by a citizen of any permit, role, variance or regulation issued pursuant to this Article. (Added by Ord. 115-97, App. 3/28/97)